

SAFETY DATA SHEET

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

1.1. Product identifier

Trade name or designation of the mixture Chockfast Gray Hardener

Registration number -

Synonyms None.

SKU# GP103H

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

Identified uses Not available.

Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

Company Name ITW Performance Polymers

Address
Bay 150
Shannon Industrial Estate
Co. Clare
Ireland
V14 DF82

Contact Person Customer Service

Telephone Number 353(61)771500

353(61)471285

Email customerservice.shannon@itwpp.com

Emergency Phone Number 44(0) 1235 239 670 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

Health hazards

Acute toxicity, oral	Category 4	H302 - Harmful if swallowed.
Acute toxicity, dermal	Category 4	H312 - Harmful in contact with skin.
Skin corrosion/irritation	Category 1	H314 - Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Category 1	H318 - Causes serious eye damage.
Skin sensitization	Category 1	H317 - May cause an allergic skin reaction.

Environmental hazards

Hazardous to the aquatic environment, long-term aquatic hazard	Category 3	H412 - Harmful to aquatic life with long lasting effects.
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2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

UFI:

Austria: GXC0-60RQ-400J-S73N
Belgium: GXC0-60RQ-400J-S73N
Bulgaria: GXC0-60RQ-400J-S73N
Croatia: GXC0-60RQ-400J-S73N
Cyprus: GXC0-60RQ-400J-S73N
Czech Republic: GXC0-60RQ-400J-S73N
Denmark: GXC0-60RQ-400J-S73N
Estonia: GXC0-60RQ-400J-S73N
EU: GXC0-60RQ-400J-S73N
Finland: GXC0-60RQ-400J-S73N
France: GXC0-60RQ-400J-S73N
Germany: GXC0-60RQ-400J-S73N
Greece: GXC0-60RQ-400J-S73N
Hungary: GXC0-60RQ-400J-S73N
Iceland: GXC0-60RQ-400J-S73N
Ireland: GXC0-60RQ-400J-S73N
Italy: GXC0-60RQ-400J-S73N
Latvia: GXC0-60RQ-400J-S73N
Lithuania: GXC0-60RQ-400J-S73N
Luxembourg: GXC0-60RQ-400J-S73N
Malta: GXC0-60RQ-400J-S73N
Netherlands: GXC0-60RQ-400J-S73N
Norway: GXC0-60RQ-400J-S73N
Poland: GXC0-60RQ-400J-S73N
Portugal: GXC0-60RQ-400J-S73N
Romania: GXC0-60RQ-400J-S73N
Slovakia: GXC0-60RQ-400J-S73N
Slovenia: GXC0-60RQ-400J-S73N
Spain: GXC0-60RQ-400J-S73N
Sweden: GXC0-60RQ-400J-S73N

Contains:

2,2'-iminodiethylamine; diethylenetriamine, 3,6-diazaoctanethylenediamin; triethylenetetramine, bisphenol A; 4,4'-isopropylidenediphenol

Hazard pictograms



Signal word

Danger

Hazard statements

H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention

P260 Do not breathe mist/vapors.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
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/hearing protection.

Response

P330 Rinse mouth.
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 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental label information 68,75% of the mixture consists of component(s) of unknown acute oral toxicity. 7,81% of the mixture consists of component(s) of unknown acute dermal toxicity. 18,75% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

2.3. Other hazards This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII. The mixture does not contain any substances included in the list established in accordance with REACH Article 59(1) for having endocrine disrupting properties at a concentration equal to or greater than 0.1% by weight.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
3,6-diazaoctanethylenediamin; triethylenetetramine	60 - 100	112-24-3 203-950-6	01-2119487919-13-0000	612-059-00-5	
Classification: Acute Tox. 4;H302;(ATE: 1716 mg/kg bw), Acute Tox. 4;H312;(ATE: 1100 mg/kg bw), Skin Corr. 1B;H314, Eye Dam. 1;H318, Skin Sens. 1;H317, Aquatic Chronic 3;H412					
2,2'-iminodiethylamine; diethylenetriamine	10 - 30	111-40-0 203-865-4	01-2119473793-27-0000	612-058-00-X	
Classification: Acute Tox. 4;H302;(ATE: 500 mg/kg bw), Acute Tox. 4;H312;(ATE: 1100 mg/kg bw), Skin Corr. 1B;H314, Eye Dam. 1;H318, Skin Sens. 1;H317					
bisphenol A; 4,4'-isopropylidenediphenol	10 - 30	80-05-7 201-245-8	01-2119457856-23-0000	604-030-00-0	#
Classification: Eye Dam. 1;H318, Skin Sens. 1;H317, Repr. 1B;H360F, STOT SE 3;H335, Aquatic Chronic 2;H411					

List of abbreviations and symbols that may be used above

ATE: Acute toxicity estimate.

M: M-factor

vPvB: very persistent and very bioaccumulative substance.

PBT: persistent, bioaccumulative and toxic substance.

#: This substance has been assigned Union workplace exposure limit(s).

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

4.1. Description of first aid measures

Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. Chemical burns must be treated by a physician. Get medical advice/attention if you feel unwell. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

Ingestion

Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

4.3. Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards

No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing media

Alcohol resistant foam. Powder. Carbon dioxide (CO2).

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters**Special protective equipment for firefighters**

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures

Move containers from fire area if you can do so without risk.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Do not breathe mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

For emergency responders

Keep unnecessary personnel away. Ensure adequate ventilation. Avoid breathing mist/vapors. Local authorities should be advised if significant spillages cannot be contained. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Should not be released into the environment. Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

6.4. Reference to other sections

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Do not breathe mist/vapors. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid prolonged exposure. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Store locked up. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

7.3. Specific end use(s)

Observe industrial sector guidance on best practices.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational exposure limits****Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001, as amended**

Components	Type	Value	Form
2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	MAK	4 mg/m ³	
		1 ppm	
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	Ceiling	5 mg/m ³	Inhalable fraction.
	MAK	2 mg/m ³	Inhalable fraction.

Belgium. OEL. Exposure Limit Values to Chemical Substances at Work, Code of Well-being at work, Book VI, Title 1 - Chemical agents, as amended

Components	Type	Value
2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	TWA	4,3 mg/m ³
		1 ppm

Belgium. OEL. Exposure Limit Values to Chemical Substances at Work, Code of Well-being at work, Book VI, Title 1 - Chemical agents, as amended

Components	Type	Value
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	2 mg/m ³

Bulgaria. OELs. Ordinance No 13 on protection of workers against risks of exposure to chemical agents at work, as amended

Components	Type	Value	Form
2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	TWA	4 mg/m ³	
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	2 mg/m ³	Inhalable fraction.

Croatia. OELs (GVI). Regulation on Protection of Workers against Exposure to Dangerous Chemicals at Work, OELs and Biological Limit Values, Annex I (NN 91/2018), as amended

Components	Type	Value	Form
2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	MAC	4,3 mg/m ³	
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	MAC	2 mg/m ³	Inhalable fraction.

Cyprus. OELs. Control of factory atmosphere and dangerous substances in factories regulation, PI 311/73, as amended

Components	Type	Value
2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	TWA	4 mg/m ³
		1 ppm

Cyprus. OELs. Occupational Exposure Limit Values of Chemicals at Work (Safety and Health at Work (Chem. Agents) Reg., Ann. 1, R.A.A. 268/2001, as amended)

Components	Type	Value	Form
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	2 mg/m ³	Inhalable fraction.

Czech Republic. Occupational exposure limit values of chemicals at work (Decree on protection of health at work, 361/2007, Annex 2, Part A & Annex 3, Part A, as amended)

Components	Type	Value	Form
2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	Ceiling	8 mg/m ³	
	TWA	4 mg/m ³	
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	Ceiling	5 mg/m ³	Dust/aerosol, inhalable.
	TWA	2 mg/m ³	Dust/aerosol, inhalable.

Denmark. Work Environment Authority. Exposure Limits for Substances & Materials, Annex 2

Components	Type	Value	Form
2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	TLV	4 mg/m ³	
		1 ppm	
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TLV	2 mg/m ³	Particulate.

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances (Regulation No. 105/2001, Annex), as amended

Components	Type	Value	Form
2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	STEL	10 mg/m3	
		2 ppm	
	TWA	4,5 mg/m3	
		1 ppm	
3,6-diazaoctanethylenediam in; triethylenetetramine (CAS 112-24-3)	STEL	12 mg/m3	
	TWA	6 mg/m3	
		1 ppm	
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	2 mg/m3	Respirable fraction.

Finland. HTP-arvot, App 3., Binding Limit Values, Social Affairs and Ministry of Health

Components	Type	Value	Form
2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	STEL	13 mg/m3	
		3 ppm	
	TWA	4,3 mg/m3	
		1 ppm	
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	2 mg/m3	

France. OELs. Occupational Exposure Limits as Prescribed by Art. R.4412-149 of Labor Code, as amended

Components	Type	Value	Form
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	VME	2 mg/m3	Inhalable dust.

France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984

Components	Type	Value	Form
2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	VME	4 mg/m3	
		1 ppm	
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	VME	2 mg/m3	Inhalable dust.

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG), as updated

Components	Type	Value	Form
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	5 mg/m3	Inhalable fraction.

Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace

Components	Type	Value	Form
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	AGW	5 mg/m3	Inhalable fraction.

Greece. OELs, Presidential Decree No. 307/1986, as amended

Components	Type	Value	Form
2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	TWA	4 mg/m ³	
		1 ppm	
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	2 mg/m ³	Inhalable fraction.

Hungary. OELs. Decree on protection of workers exposed to chemical agents (5/2020. (II.6)), Annex 1&2, as amended

Components	Type	Value	Form
2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	STEL	8 mg/m ³	
	TWA	4 mg/m ³	
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	2 mg/m ³	

Iceland. OELs. Regulation 390/2009 on Pollution Limits and Measures to Reduce Pollution at the Workplace, as amended

Components	Type	Value	Form
2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	TWA	4,5 mg/m ³	
		1 ppm	
3,6-diazaoctanethylenediam in; triethylenetetramine (CAS 112-24-3)	TWA	6 mg/m ³	
		1 ppm	
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	2 mg/m ³	Inhalable fraction.

Ireland. OELVs, Schedules 1 & 2, Code of Practice for Chemical Agents and Carcinogens Regulations

Components	Type	Value	Form
2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	TWA	4 mg/m ³	
		1 ppm	
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	2 mg/m ³	Inhalable dust.

Italy. OELs (Legislative Decree n.81, 9 April 2008), as amended

Components	Type	Value	Form
2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	TWA	1 ppm	
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	2 mg/m ³	Inhalable fraction.

Latvia. OELs. Occupational Exposure Limits of Chemical Substances at Workplace (Reg. No. 325/ 2007, L.V. 80, Annex 1), as amended

Components	Type	Value	Form
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	2 mg/m ³	Inhalable fraction.

Lithuania. OELs. Occupational Exposure Limit Values for Chemical Substances (Hygiene Norm HN 23:2011; Order No. V-824/A1-389), as amended

Components	Type	Value	Form
2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	STEL	10 mg/m ³	

Lithuania. OELs. Occupational Exposure Limit Values for Chemical Substances (Hygiene Norm HN 23:2011; Order No. V-824/A1-389), as amended

Components	Type	Value	Form
3,6-diazaoctanethylenediamin; triethylenetetramine (CAS 112-24-3)		2 ppm	
	TWA	4,5 mg/m ³	
		1 ppm	
	STEL	12 mg/m ³	
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)		2 ppm	
	TWA	6 mg/m ³	
	TWA	2 mg/m ³	Respirable dust.

Luxembourg. OELs. Binding Occupational Exposure Limit Values (Annex I), G.D.R. of 14 November 2016, OJ Memorial A, n ° 235/2016, as amended

Components	Type	Value	Form
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	2 mg/m ³	Inhalable fraction.

Malta. OELs. Protection of Health and Safety of Workers from Risks related to Chemical Agents at Work (L.N 227/2003 Schedules I and V), as amended

Components	Type	Value	Form
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	2 mg/m ³	Inhalable fraction.

Netherlands. OELs per Annex XIII of Working Conditions Regulation (Staatscourant no. 252, 29 December 2006), as amended

Components	Type	Value	Form
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	2 mg/m ³	Inhalable fraction.

Norway. Regulation No. 1358 on Measures and Limit Values for Physical and Chemical Factors in Work Environment and Infection Groups for Biological Factors, as amended

Components	Type	Value	Form
2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	TLV	4 mg/m ³	
3,6-diazaoctanethylenediamin; triethylenetetramine (CAS 112-24-3)		1 ppm	
	TLV	6 mg/m ³	
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)		1 ppm	
	TLV	2 mg/m ³	Inhalable fraction.

Poland. Maximum permissible concentrations and intensities of harmful factors in the work environment (Dz.U.Poz. 1286/2018, Annex 1)

Components	Type	Value	Form
2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	STEL	12 mg/m ³	
	TWA	4 mg/m ³	
3,6-diazaoctanethylenediamin; triethylenetetramine (CAS 112-24-3)	STEL	3 mg/m ³	
	TWA	1 mg/m ³	

Poland. Maximum permissible concentrations and intensities of harmful factors in the work environment (Dz.U.Poz. 1286/2018, Annex 1)

Components	Type	Value	Form
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	2 mg/m ³	Inhalable fraction.

Portugal. Decree-Law No. 24/2012, Occupational Exposure Limit Values, Annex II, as amended

Components	Type	Value	Form
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	2 mg/m ³	Inhalable fraction.

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796-2014)

Components	Type	Value
2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	TWA	1 ppm

Romania. OELs. Limit Values of Chemical Agents at Workplace (Regulation 1.218/2006, M.O 845, Annex 1, 3&4, as amended)

Components	Type	Value	Form
2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	STEL	4 mg/m ³	
	TWA	1 ppm 2 mg/m ³ 0,5 ppm	
3,6-diazaoctanethylenediam in; triethylenetetramine (CAS 112-24-3)	STEL	20 mg/m ³	
	TWA	3,3 ppm 10 mg/m ³ 1,7 ppm	
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	2 mg/m ³	Gaseous and vapor, inhalable fraction

Slovakia. OELs. Maximum permissible exposure limits for chemical factors in workplace air (Regulation No 355/2006, Annex 1, Table 1, as amended)

Components	Type	Value	Form
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	2 mg/m ³	Inhalable fraction.

Slovenia. OELs. Occupational Exposure Limits of Chemicals at Workplace (Reg. on Protection of Workers from Risks due to Exp. to Chemicals at Work, Annex I), as amended

Components	Type	Value	Form
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	2 mg/m ³	Inhalable fraction.

Spain. OELs. INSST, Límites de Exposición Profesional Para Agentes Químicos, Table 1-Valores Límites Ambientales (VLAs)

Components	Type	Value
2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	TWA	4,3 mg/m ³
		1 ppm
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	2 mg/m ³

Sweden. OELs (Annex 1). Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2018:1), as amended

Components	Type	Value	Form
2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	STEL	10 mg/m ³	
		2 ppm	
3,6-diazaoctanethylenediam in; triethylenetetramine (CAS 112-24-3)	TWA	4,5 mg/m ³	
		1 ppm	
	STEL	12 mg/m ³	
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	2 mg/m ³	Inhalable dust.
		2 ppm	
	TWA	6 mg/m ³	
		1 ppm	

Switzerland. SUVA Grenzwerte am Arbeitsplatz: Aktuelle MAK-Werte

Components	Type	Value	Form
2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	TWA	4 mg/m ³	
		1 ppm	
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	3 mg/m ³	Inhalable fraction.

UK. OELs. Workplace Exposure Limits (WELs) (EH40/2005 (Fourth Edition 2020)), Table 1

Components	Type	Value	Form
2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	TWA	4,3 mg/m ³	
		1 ppm	
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	2 mg/m ³	

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU

Components	Type	Value	Form
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	2 mg/m ³	Inhalable fraction.

EU. OELs, Directive 2004/37/EC on carcinogen and mutagens from Annex III, Part A, as amended

Components	Type	Value	Form
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	TWA	2 mg/m ³	Inhalable fraction.

Biological limit values No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no effect levels (DNELs) Not available.

Predicted no effect concentrations (PNECs) Not available.

Exposure guidelines

Belgium OELs: Skin designation

2,2'-iminodiethylamine; diethylenetriamine
(CAS 111-40-0)

Can be absorbed through the skin.

Cyprus OEL: Skin designation

2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	Can be absorbed through the skin.
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Denmark GV: Skin designation

2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	Can be absorbed through the skin.
--	-----------------------------------

Estonia OELs: Skin designation

2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	Can be absorbed through the skin.
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Finland Exposure Limit Values: Skin designation

2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	Can be absorbed through the skin.
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Greece OEL: Skin designation

2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	Can be absorbed through the skin.
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Hungary OELs: Skin designation

2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	Can be absorbed through the skin.
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Iceland OELs: Skin designation

2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	Can be absorbed through the skin.
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Ireland Exposure Limit Values: Skin designation

2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	Can be absorbed through the skin.
--	-----------------------------------

Italy OELs: Skin designation

2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	Danger of cutaneous absorption
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bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)	Danger of cutaneous absorption
--	--------------------------------

Lithuania OELs: Skin designation

2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	Can be absorbed through the skin.
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Norway Exposure Limit Values: Skin designation

2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	Can be absorbed through the skin.
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Portugal VLEs Norm on Occupational Exposure: Skin designation

2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	Can be absorbed through the skin.
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Romania OELs: Skin designation

2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	Can be absorbed through the skin.
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Spain OELs: Skin designation

2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	Can be absorbed through the skin.
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Sweden Threshold Limit Values: Skin designation

2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	Can be absorbed through the skin.
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Switzerland SUVA Limit Values at the Workplace: Skin designation

2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	Can be absorbed through the skin.
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UK EH40 WEL: Skin designation

2,2'-iminodiethylamine; diethylenetriamine (CAS 111-40-0)	Can be absorbed through the skin.
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8.2. Exposure controls**Appropriate engineering controls**

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment**General information**

Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection

Wear safety glasses with side shields (or goggles) and a face shield. Face shield is recommended.

Skin protection

- Hand protection	Wear appropriate chemical resistant gloves.
- Other	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
Hygiene measures	Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.
Environmental exposure controls	Inform appropriate managerial or supervisory personnel of all environmental releases. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Form	Liquid.
Color	Amber
Odor	fishy
Melting point/freezing point	Not available.
Boiling point or initial boiling point and boiling range	>390 °F (>198,89 °C)
Flammability	Not applicable.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	1 % estimated
Explosive limit - upper (%)	9,5 % estimated
Flash point	>201,0 °F (>93,9 °C)
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
pH	≤11,6
Kinematic viscosity	Not available.
Solubility	
Solubility (water)	<75 %
Partition coefficient (n-octanol/water) (log value)	Not available.
Vapor pressure	<0,1 mm Hg
Density and/or relative density	
Density	1,01 g/cm ³
Vapor density	>1
Particle characteristics	Not available.

9.2. Other information

9.2.1. Information with regard to physical hazard classes No relevant additional information available.

9.2.2. Other safety characteristics

Evaporation rate	<1
Specific gravity	1,01

SECTION 10: Stability and reactivity

10.1. Reactivity	Reacts violently with strong alkaline substances. This product may react with reducing agents.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials. Do not mix with other chemicals.
10.5. Incompatible materials	Strong acids. Bases. Reducing agents. Alkaline metals. Peroxides. Phenols.
10.6. Hazardous decomposition products	No hazardous decomposition products are known.

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact Causes severe skin burns. Harmful in contact with skin. May cause an allergic skin reaction.
Eye contact Causes serious eye damage.
Ingestion Causes digestive tract burns. Harmful if swallowed.

Symptoms Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

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

Acute toxicity Harmful if inhaled. Harmful in contact with skin. Harmful if swallowed.

Components	Species	Test Results
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3,6-diazaoctanethylenediamin; triethylenetetramine (CAS 112-24-3)

Acute

Dermal

Liquid

LD50	Rat	1465 mg/kg
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Oral

Liquid

LD50	Rat	1716 mg/kg
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bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)

Acute

Dermal

LD50	Rabbit	3000 mg/kg
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Oral

LD50	Rat	3250 mg/kg
------	-----	------------

Skin corrosion/irritation Causes severe skin burns and eye damage.

Serious eye damage/eye irritation Causes serious eye damage.

Respiratory sensitization Due to partial or complete lack of data the classification is not possible.

Skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity Due to partial or complete lack of data the classification is not possible.

Carcinogenicity Due to partial or complete lack of data the classification is not possible.

Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)

bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7) Toxic for reproduction, Category 1B.

Specific target organ toxicity - single exposure Due to partial or complete lack of data the classification is not possible.

Specific target organ toxicity - repeated exposure Due to partial or complete lack of data the classification is not possible.

Aspiration hazard Due to partial or complete lack of data the classification is not possible.

Mixture versus substance information No information available.

11.2. Information on other hazards

Endocrine disrupting properties This mixture does not contain any substances having endocrine disrupting properties with respect to human health as assessed in accordance with the criteria set out in Regulations (EC) No 1907/2006, (EU) No 2017/2100 and (EU) 2018/605, at a concentration equal to or greater than 0.1% by weight.

Other information Not available.

SECTION 12: Ecological information

12.1. Toxicity	Harmful to aquatic life with long lasting effects. Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems. Based on available data, the classification criteria are not met for hazardous to the aquatic environment, acute hazard.
12.2. Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.
12.3. Bioaccumulative potential	
Partition coefficient n-octanol/water (log Kow)	
bisphenol A; 4,4'-isopropylidenediphenol	3,32
Bioconcentration factor (BCF)	Not available.
12.4. Mobility in soil	No data available.
12.5. Results of PBT and vPvB assessment	This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.
12.6. Endocrine disrupting properties	This mixture does not contain any substances having endocrine disrupting properties with respect to the environment as assessed in accordance with the criteria set out in Regulations (EC) No 1907/2006, (EU) No 2017/2100 and (EU) 2018/605, at a concentration equal to or greater than 0.1% by weight.
12.7. Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: Disposal considerations

13.1. Waste treatment methods	
Residual waste	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.
EU waste code	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Special precautions	Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. UN number	UN2735
14.2. UN proper shipping name	Amines, liquid, corrosive, n.o.s. (2,2'-iminodiethylamine; diethylenetriamine, 3,6-diazaoctanethylenediamin; triethylenetetramine)
14.3. Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Hazard No. (ADR)	Not assigned.
Tunnel restriction code	Not assigned.
14.4. Packing group	II
14.5. Environmental hazards	No.
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

RID

14.1. UN number	UN2735
14.2. UN proper shipping name	Amines, liquid, corrosive, n.o.s. (2,2'-iminodiethylamine; diethylenetriamine, 3,6-diazaoctanethylenediamin; triethylenetetramine)
14.3. Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
14.4. Packing group	II
14.5. Environmental hazards	No.

14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

ADN

14.1. UN number UN2735
14.2. UN proper shipping name Amines, liquid, corrosive, n.o.s. (2,2'-iminodiethylamine; diethylenetriamine, 3,6-diazaoctanethylenediamin; triethylenetetramine)
14.3. Transport hazard class(es)
 Class 8
 Subsidiary risk -
 Label(s) 8
14.4. Packing group II
14.5. Environmental hazards No.
14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IATA

14.1. UN number UN2735
14.2. UN proper shipping name Amines, liquid, corrosive, n.o.s. (2,2'-iminodiethylamine; diethylenetriamine, 3,6-diazaoctanethylenediamin; triethylenetetramine)
14.3. Transport hazard class(es)
 Class 8
 Subsidiary risk -
14.4. Packing group II
14.5. Environmental hazards No.
14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo aircraft Allowed with restrictions.
Cargo aircraft only Allowed with restrictions.

IMDG

14.1. UN number UN2735
14.2. UN proper shipping name Amines, liquid, corrosive, n.o.s. (2,2'-iminodiethylamine; diethylenetriamine, 3,6-diazaoctanethylenediamin; triethylenetetramine)
14.3. Transport hazard class(es)
 Class 8
 Subsidiary risk -
14.4. Packing group II
14.5. Environmental hazards
 Marine pollutant No.
EmS Not assigned.
14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

14.7. Maritime transport in bulk according to IMO instruments Not established.

ADN; ADR; IATA; IMDG; RID



SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended
Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended
Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended
Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended
Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended
Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA
bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)

UFI:

Austria: GXC0-60RQ-400J-S73N
Belgium: GXC0-60RQ-400J-S73N
Bulgaria: GXC0-60RQ-400J-S73N
Croatia: GXC0-60RQ-400J-S73N
Cyprus: GXC0-60RQ-400J-S73N
Czech Republic: GXC0-60RQ-400J-S73N
Denmark: GXC0-60RQ-400J-S73N
Estonia: GXC0-60RQ-400J-S73N
EU: GXC0-60RQ-400J-S73N
Finland: GXC0-60RQ-400J-S73N
France: GXC0-60RQ-400J-S73N
Germany: GXC0-60RQ-400J-S73N
Greece: GXC0-60RQ-400J-S73N
Hungary: GXC0-60RQ-400J-S73N
Iceland: GXC0-60RQ-400J-S73N
Ireland: GXC0-60RQ-400J-S73N
Italy: GXC0-60RQ-400J-S73N
Latvia: GXC0-60RQ-400J-S73N
Lithuania: GXC0-60RQ-400J-S73N
Luxembourg: GXC0-60RQ-400J-S73N
Malta: GXC0-60RQ-400J-S73N
Netherlands: GXC0-60RQ-400J-S73N
Norway: GXC0-60RQ-400J-S73N
Poland: GXC0-60RQ-400J-S73N
Portugal: GXC0-60RQ-400J-S73N
Romania: GXC0-60RQ-400J-S73N
Slovakia: GXC0-60RQ-400J-S73N
Slovenia: GXC0-60RQ-400J-S73N
Spain: GXC0-60RQ-400J-S73N
Sweden: GXC0-60RQ-400J-S73N

Authorizations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended
Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use, as amended
- Conditions of restriction given for the associated entry number should be considered

bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7) 66

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended

bisphenol A; 4,4'-isopropylidenediphenol (CAS 80-05-7)

Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.

National regulations

Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended. Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended.

France regulations

France INRS Table of Occupational Diseases

Not regulated.

Product registration number

Austria UFI: GXC0-60RQ-400J-S73N
Belgium UFI: GXC0-60RQ-400J-S73N
Czech Republic UFI: GXC0-60RQ-400J-S73N
Denmark UFI: GXC0-60RQ-400J-S73N

European Union	UFI: GXC0-60RQ-400J-S73N
Finland	UFI: GXC0-60RQ-400J-S73N
France	UFI: GXC0-60RQ-400J-S73N
Germany	UFI: GXC0-60RQ-400J-S73N
Greece	UFI: GXC0-60RQ-400J-S73N
Hungary	UFI: GXC0-60RQ-400J-S73N
Italy	UFI: GXC0-60RQ-400J-S73N
Netherlands	UFI: GXC0-60RQ-400J-S73N
Norway	UFI: GXC0-60RQ-400J-S73N
Poland	UFI: GXC0-60RQ-400J-S73N
Portugal	UFI: GXC0-60RQ-400J-S73N
Slovakia	UFI: GXC0-60RQ-400J-S73N
Slovenia	UFI: GXC0-60RQ-400J-S73N
Spain	UFI: GXC0-60RQ-400J-S73N
Sweden	UFI: GXC0-60RQ-400J-S73N
Switzerland	UFI: GXC0-60RQ-400J-S73N

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
 ADR: Agreement concerning the International Carriage of Dangerous Goods by Road.
 AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert – Germany).
 CAS: Chemical Abstract Service.
 CEN: European Committee for Standardization.
 IATA: International Air Transport Association.
 IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk.
 IMDG: International Maritime Dangerous Goods.
 MAC: Maximum Allowed Concentration.
 MARPOL: International Convention for the Prevention of Pollution from Ships.
 PBT: Persistent, bioaccumulative and toxic.
 RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.
 STEL: Short term exposure limit.
 TLV: Threshold Limit Value.
 TWA: Time Weighted Average.
 VLE: Exposure Limit Value.
 VME: Exposure Average Value.
 vPvB: Very persistent and very bioaccumulative.

References

Not available.

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any statements, which are not written out in full under sections 2 to 15

H302 Harmful if swallowed.
 H312 Harmful in contact with skin.
 H314 Causes severe skin burns and eye damage.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H335 May cause respiratory irritation.
 H360F May damage fertility.
 H411 Toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.

Revision information

Physical & Chemical Properties: Multiple Properties

Training information

Follow training instructions when handling this material.

Disclaimer

ITW Performance Polymers cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.