SAFETY DATA SHEET

chemifix

i-pour Pro Resin

Date of issue: 21.08.2023

VERSION: 1.0/EN

in accordance the Commission Regulation (EU) No **2020/878** of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

1 SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

i-pour Pro Resin

UFI : 7800-Y0K1-300H-TFVA

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

Identified uses: Uses in coatings Resin for epoxy systems.

Uses advised against:. Every way of using not mentioned above or in the point 7.3.

1.3 Details of the supplier of the safety data sheet

Chemifix Oy

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33200 Tampere, Finland

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Email: Matthew.smith@chemifix.com

1.4 Emergency telephone number

112 (emergency telephone number). 998 (Fire Brigade), 999 (Medical Rescue Service),

Emergency telephone number

Country	Official advisory body	Address	Emergency number	Remark
Austria	Vergiftungsinformationszentra le (Poisons Information Centre)	Stubenring 6 1010 Wien	+43 1 406 43 43	
Belgium	Centre Anti-Poisons/ Antigifcentrum c/o Hôpital Central de la Base – Reine Astrid	Rue Bruyn 1 B -1120 Bruxelles/Brussel	+32 70 245 245	Please dial: 070 245245 for any urgent questions about intoxication (free of charge 24/7), if not accessible, dial: 02 264 96 30 (standard fee)
Bulgaria	Национален токсикологичен информационен център (National Toxicological Information Centre) Многопрофилна болница за активно лечение и спешна медицина "Н.И.Пирогов" (National Clinical Toxicology Centre), Emergency Medical Institute "Pirogov"	21 Totleben Boulevard 1606 SOFIA	+359 2 9154 409	
Croatia	Centar za kontrolu otrovanja Institut za medicinska istraživanja i medicinu rada	Ksaverska Cesta 2 p.p. 291 10000 Zagreb	+385 1 234 8342	
Cyprus	Κέντρου Δηλητηριάσεων		1401	Operating hours 24 hours / 24 hours, 7 days a week
Czech Republic	Toxikologickéinformačnístředisko Klinikapracovníholékařství VFN a 1. LF UK	Na Bojišti 1 120 00 Praha 2	+420 224 919 293 +420 224 915 402	
Denmark	Giftlinjen Bispebjerg Hospital	Bispebjerg Bakke 23 2400 København NV	+45 82 12 12 12	
Estonia	Mürgistusteabekeskus	Gonsiori 29 15027 Tallinn	16662 +372 626 93 90	
Finland	**Myrkytystietokeskus**	**Stenbäckinkatu 9 PO BOX 100 29 Helsinki**	**+358 9 471 977 +358 9 4711**	
France	Centre Antipoison et de Toxicovigilance de Paris Hôpital Fernand Widal	200 rue du Faubourg Saint-Denis 75475 Paris Cedex 10	+33 1 40 05 48 48	
France	Centre Antipoison et de Toxicovigilance de Marseille Hôpital Sainte Marguerite	270 boulevard de Sainte Marguerite 13274 Marseille Cedex 09	+33 4 91 75 25 25	
Germany	Giftnotruf München Toxikologische Abteilung der II. Med. Klinik und Poliklinik rechts der Isar der Technischen Universität München	Ismaninger Straße 22 81675 München	+49 (0) 89 19240	
Germany	Giftnotruf der Charité CBF, Haus VIII (Wirtschaftgebäude), UG	Hindenburgdamm 30 12203 Berlin	+49 (0) 30 19240	
Greece	Poisons Information Centre Children's Hospital P&A Kyriakou	11762 Athens	+30 2 10 779 3777	
Hungary	Országos Kémiai Biztonsági Intézet Egészségügyi Toxikológiai	Nagyvárad tér 2. 1437 Budapest, Pf. 839	+36 80 20 11 99	

	Tájékoztató Szolgálat	1097 Budapest		
Iceland	Eitrunarmiðstöð Landspítali	Fossvogi 108 Reykjavik	+354 543 22 22	
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
Italy	Centro Antiveleni Dipartimento di Tossicologia Clinica, Universita Cattolica del Sacro Cuore	Largo Agostino Gemelli 8 168 Roma	+39 06 305 4343	
Latvia	Valsts Toksikoloģijas centrs, Saindēšanās un zāļu informācijas centrs	Hipokrāta 2 1038 Rīga	+371 67 04 24 73	
Lithuania	Apsinuodijimų informacijos biuras	Birutės g. 56 8110 Vilnius	+370 5 236 20 52 +370 687 53378	
Luxembourg	Centre Anti-Poisons/ Antigifcentrum c/o Hôpital Central de la Base - Reine Astrid	Rue Bruyn 1 1120 Bruxelles/Brussel	+352 8002 5500	
Malta	Medicines & Poisons Info Office	Mater Dei Hospital MSD Msida	+356 2545 6504	
Netherlands	Nationaal Vergiftigingen Informatie Centrum Universitair Medisch Centrum Utrecht, Het Nationaal Vergiftigingen Informatie Centrum (NVIC) informeert (dieren-) artsen, apothekers en andere professionele hulpverleners over de mogelijke gezondheidseffecten en behandelingsmogelijkheden bij vergiftigingen. Het NVIC is hiervoor dag en nacht bereikbaar, zowel telefonisch als via internet	Huispostnummer B.00.118 PO Box 85500 3508 GA Utrecht	+31 30 274 88 88	Only for thepurpose of informing medical personnel in cases of acute intoxications
Norway	Giftinformasjonen Helsedirektoratet	P.O. Box 7000 St. Olavs Plass 130 Oslo	+47 22 591300	
Poland	National Poisons Information Centre The Nofer Institute of Occupational Medicine (Łódź)	ul. Teresy 8 P.O. BOX 199 90950 Łódź	+48 42 63 14 724	
Portugal	Centro de InformaçãoAntivenenosInstituto Nacional de Emergência Médica	Rua Almirante Barroso, 36 1000-013 Lisboa	+351 808 250 143	
Romania	Department of Clinical Toxicology Spitalul de Urgenta Floreasca	Calea Floreasca Bucuresti	+40 21 230 8000	
Serbia	Nacionalni centar za kontrolu trovanja - VMA	Crnotravska 17 11000 Beograd	+381 11 360 84 40 (24h) +381 11 3672 187	
Slovakia	Národné toxikologickéinformačné centrum UniverzitnánemocnicaBratislava, pracoviskoKramáre, Klinikapracovnéholekárstva a toxikológie	Limbová 5 833 05 Bratislava	+421 2 54 77 41 66	
Slovenia	Center za kliničnotoksikologijo in farmakologijoInternaklinika, UKCL	Zaloška cesta 7 1525 Ljubljana	+386 41 650 500	
Spain	Servicio de Información Toxicológica Instituto Nacional de Toxicología y Ciencias Forenses, Departamento de Sevilla	Carretera de San Jerónimo Km 0,4 41080 Sevilla	+34 91 562 04 20	(Toxicological emergencies only). Information in Spanish (24/7)
Sweden	Giftinformationscentralen	Box 60 500 171 76 Stockholm	112 – begär Giftinformation +46 10 456 6700 (Från utlandet)	(from abroad: +41 44 251 51 51) non urgent inquiry: +41 44 251 66 66
Switzerland	Tox Info Suisse	Freiestrasse 16 8032 Zürich	145	

2 SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Physical and chemical hazards:

This mixture does not present a physical hazard. Refer to the Recommendations regarding to the other products present on the site.

Health hazards

Skin corrosion/irritation, Hazard Category 2 [Skin Irrit. 2]

Causes skin irritation (H315)

Sensitisation - Skin, hazard category 1, 1A, 1B 1 [Skin Sens.1]
May cause an allergic skin reaction. (H317)
Serious eye damage/eye irritation, Hazard Category 2 [Eye Irrit. 2]
Causes serious eye irritation (H319)
Environmental hazards:
Hazardous to the aquatic environment — Chronic Hazard, Category 2 [Aquatic Chronic 2]
Toxic to aquatic life with long lasting effects. (H411)

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008
Pictogram

GHS07 **GHS09**

Signal word: Warning

Supplemental Hazard Statements on labels
Contains: bis-[4-(2,3-epoxipropoxi)phenyl]propane; oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
Hazard statement(s)
H317 May cause an allergic skin reaction.
H315 Causes skin irritation
H319 Causes serious eye irritation
H411 Toxic to aquatic life with long lasting effects.
Precautionary statement(s)
General
P102 Keep out of reach of children.
Prevention:
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/ attention.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Disposal
P501 Dispose of contents/container to industrial incineration plant
Special rules for supplemental label elements for certain mixtures
EUH205 Contains epoxy constituents. May produce an allergic reaction

2.3 Other hazards

The substances contained in the product do not meet criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation.
The product does not contain substances included in the list established in accordance with Article 59 (1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 % by weight.

3 SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances:

Not applicable

3.2 Mixtures:

Substance identifier	Name of the substance	Weight fraction %	Classification in line with The Regulation (EC) No. 1272/2008		
			Signal Word Code(s)	Hazard Class and Category Code(s)	Hazard Statement Code(s)
CAS No: 1675-54-3 EC No: 216-823-5 Index No: 603-073-00-2 REACH-Reg: 01-2119456619-26-xxxx	Bis-[4-(2,3-epoxipropoxi)phenyl]propane	60<x<100	GHS07 GHS09 Wng	Eye Irrit 2 Skin Irrit 2 Skin Sens 1 Aquatic Chronic 2 **Specific Concentration limits:** Eye Irrit. 2; H319: C ≥ 5 % Skin Irrit. 2; H315: C ≥ 5 %	H319 H315 H317 H411
CAS No: 68609-97-2 EC No: 271-846-8 Index No: 603-103-00-4 REACH-Reg: 01-2119485289-22-xxxx	Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	10<x<40	GHS07 Wng	Skin Irrit 2 Skin Sens 1	H315 H317

Full H phrases are specified in point 16 hereof.

4 SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove contaminated, saturated clothing immediately. Wash thoroughly the body (shower or bath). Remove affected person from the danger area and lay down. Transport affected person in lying position, in case of shortness of breath in half-sitting position. Put victim at rest, cover with a blanket and keep warm. Do not leave affected person unattended.

If inhaled: Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately

In case of skin contact: After contact with skin, wash immediately with plenty of water and soap. In case of skin reactions, consult a physician. In case of skin irritation, consult a physician

In case of eye contact: In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing. Protect uninjured eye.

If swallowed: If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do NOT induce vomiting

4.2 Most important symptoms and effects, both acute and delayed

Contact with skin:	Causes skin irritation In the case of prolonged contact, skin redness, irritation. May cause an allergic skin reaction.
Eye contact:	Causes serious eye irritation
Ingestion:	Possible abdominal pain, nausea, vomiting
Inhalation:	Possible irritation of the mucous membranes of respiratory system, cough

4.3 Indication of any immediate medical attention and special treatment needed

Physician makes a decision regarding further medical treatment after thoroughly examination of the injured. Treat symptomatically

5 SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media:

Adapt extinguishing media to the environment

Unsuitable extinguishing media:

Jet water.

5.2 Special hazards arising from the substance or mixture

During the combustion, toxic gases may be generated, such as carbon monoxide, Carbon dioxide (CO_2), Hydrogen chloride (HCl)); organic vapors, etc. Avoid inhalation of combustion products that may pose a health risk.

5.3 Advice for firefighters

The security measures typical in case of fire. Do not stay in the danger zone without adequate fireresistant clothing and chemical-contained breathing apparatus with independent air circulation. Containers not consumed by fire but exposed to fire should be cooled down with sprayed water and removed from the risk area, if possible. Do not allow extinguishing water entering drains, surface water and groundwater .

6 SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Limit the access of third persons to the affected area until respective cleaning operations are finished. In the case of large releases, isolate the affected area. Ensure that the effects of the failure are eliminated by trained staff only. Use personal protective equipment. Avoid contact with eyes. Avoid breathing vapors.

For emergency responders

Ensure that breakdown and its results are only trained personnel. Use personal protective equipment.

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

For containment

Cover drains. Stop leak if safe to do so. Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Take up mechanically, placing in appropriate containers for disposal.

For cleaning up

Collect in closed and suitable containers for disposal. Clean contaminated articles and floor according to the environmental legislation

6.4 Reference to other sections

Appropriate conduct with waste product – section 13. Personal protection equipment – section 8.

7 SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Handle in accordance with good occupational hygiene and safety practices. Do not eat, drink or smoke while working with the product. Avoid eye contamination and direct skin contact. Before break and afterwork wash hands. Do not inhale vapors. Ensure adequate ventilation. Use in accordance with its intended purpose. Keep the unused containers tightly closed. Containers that are opened should be properly resealed and kept upright to prevent leakage. Keep away from sources of ignition - No smoking. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames

Avoid exceeding the given occupational exposure limits (see section 8).

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Only use containers specifically approved for the substance/product. Protect containers against damage. Keep container tightly closed and in a well-ventilated place.

Packaging materials

Unsuitable container/equipment material: Copper Alloy, containing copper

Hints on joint storage

Storage class (TRGS 510) : 10

Keep away from

Keep away from food, drink and animal feedingstuffs

7.3 Specific end use(s)

No information about uses other than mentioned in subsection 1.2.

8 SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters

Product does not contain any components with occupational exposure limit values at working place.

Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	
DNEL	
Data for WORKERS	
INHALATION Exposure; Systemic Effects; Long-term:	3.6 mg/m³
DERMAL Exposure Systemic Effects; Long-term	1 mg/kg bw/day
Data for the GENERAL POPULATION	
INHALATION Exposure; Systemic Effects; Long-term:	870 µg/m³
DERMAL Exposure Systemic Effects; Long-term	500 µg/kg bw/day
PNEC	
Freshwater	105.8 µg/L
Intermittent releases (freshwater)	72 µg/L
Marine water	10.58 µg/L
Intermittent releases (marine water)	-
Sewage treatment plant (STP)	10 mg/L (

Sediment (freshwater)	307.16 mg/kg sediment dw
Sediment (marine water)	30.72 mg/kg sediment dw
Soil	1.234 mg/kg soil dw
Bis-[4-(2,3-epoxipropoxi)phenyl]propane	
DNEL	
Data for WORKERS	
INHALATION Exposure; Systemic Effects; Long-term:	4.93 mg/m³
DERMAL Exposure Systemic Effects; Long-term	750 µg/kg bw/day
Data for the GENERAL POPULATION	
INHALATION Exposure; Systemic Effects; Long-term:	870 µg/m³
DERMAL Exposure Systemic Effects; Long-term	89.3 µg/kg bw/day
ORAL Exposure Systemic Effects; Long-term	500 µg/kg bw/day
PNEC	
Freshwater	6 µg/L
Intermittent releases (freshwater)	18 µg/L
Marine water	600 ng/L
Intermittent releases (marine water)	1.8 µg/L
Sewage treatment plant (STP)	10 mg/L
Sediment (freshwater)	341 µg/kg sediment dw
Sediment (marine water)	34.1 µg/kg sediment dw
Soil	64.7 µg/kg soil dw

Recommended monitoring procedures

Monitoring procedures should be used fot concentrations of hazardous components in the air. Air quality control procedures should be used in the workplace - as long as they are available and reasonable for the job - in accordance with the relevant European Standards, taking into account the conditions prevailing at the site of exposure and corresponding measurement methodologies adapted to the conditions work.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Provide for sufficient ventilation. Technical measures and the application of suitable work processes have priority over personal protection equipment

8.2.2 Individual protection measures, such as personal protective equipment

Respiratory protection : Not required in case of adequate ventilation. se a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.[Combination filtering device Filter type: A]

Hand and body protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Suitable gloves type : Gloves with long cuffs

Suitable material: NBR (Nitrile rubber) PVC (polyvinyl chloride) CR (polychloroprene, chloroprene rubber) Butyl caoutchouc (butyl rubber) FKM (fluoro rubber)
Wearing time with occasional contact (splashes) : > 10 min
Wearing time with permanent contact : > 480 min

Eye protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. [Eye glasses with side protection DIN-/EN-Norms : EN 166/ **Provide eye shower and label its location conspicuously**]

Body Protection: Personal protective equipment for the body should be selected based on the task being performer and the risks involved and should be approved by a specialist before handling this product.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Hygiene at work: Apply general hygiene at work rules. After work, remove contaminated clothes and wash thoroughly the whole body. Wash your hands and face during breaks. Restrain from drinking and eating or smoking at work.

8.2.3 Environmental exposure controls

Avoid release to the environment, do not enter the sewage system. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

9 SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Colourless
Odour:	Characteristic
Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	200°C
Flammability:	non-flammable
Partition coefficient n-octanol/water (log value):	not determined
Lower and upper explosion limit:	not determined
Flash point:	100°C
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH:	not determined
Kinematic viscosity:	600 mPa*s
Solubility:	not determined
Vapour pressure:	not determined
Density and/or relative density:	1,1g/cm^3
Relative vapour density:	not determined
Particle characteristics:	Inapplicable –[liquid]

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Information unavailable

9.2.2 Other safety characteristics

VOC-value : 0 g/l

10 SECTION 10: STABILITY AND REACTIVITY

10.1 **Reactivity**
No reactivity under recommended storage and handling conditions.

10.2 **Chemical stability**
Stable under recommended storage and usage conditions.

10.3 **Possibility of hazardous reactions**
Violent reaction with: Amines. Acid

10.4 **Conditions to avoid**
Keep away from heat

10.5 **Incompatible materials**
Oxidising agent, strong. Strong acid Amines

10.6 **Hazardous decomposition products**
Thermal decomposition or incomplete combustion may produce carbon monoxide, nitrous gases and irritating fumes.
Reference to other sections: 5.2.

11 SECTION 11: TOXICOLOGICAL INFORMATION

11.1 **Information on hazard classes as defined in Regulation (EC) No 1272/2008**
Information regarding acute and/or delayed results of the exposure was defined on the basis of the information on product's classification and/or toxicological studies as well as the experience and knowledge of the manufacturer

Acute toxicity of mixtures

ATE_{MIX} oral (mg / kg): >2000 Based on available information, classification criteria are not met.
ATE_{MIX} dermal (mg/kg): >2000 Based on available information, classification criteria are not met.
ATE_{MIX} inhalation (mg / l / 4h):>20 Based on available information, classification criteria are not met.
*ATEmix value was calculated using relevant converted acute toxicity point estimate included in 3.1.2 table from Regulation 1272/2008/EC.

Skin corrosion/irritation
Causes skin irritation

Serious eye damage/irritation
Causes serious eye irritation

Respiratory or skin sensitisation
May cause an allergic skin reaction

Germ cell mutagenicity
Based on available information, classification criteria are not met.

Carcinogenicity
Based on available information, classification criteria are not met.

Reproductive toxicity
Based on available information, classification criteria are not met.

Specific target organ toxicity - single exposure
Based on available information, classification criteria are not met.

Specific target organ toxicity - repeated exposure
Based on available information, classification criteria are not met.

Aspiration hazard
Based on available information, classification criteria are not met.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Contact with skin: Causes skin irritation In the case of prolonged contact, skin redness, irritation. May cause an allergic skin reaction.

Eye contact: Causes serious eye irritation

Ingestion: Possible abdominal pain, nausea, vomiting

11.1.1 Inhalation:Possible irritation of the mucous membranes of respiratory system, cough**Endocrine disrupting properties**

The components of the mixture do not affect the functioning of the hormonal system in accordance with the evaluation criteria defined in the Regulations: (EC) No 1907/2006, (EU) 2017/2100, (EU) 2018/605

11.1.2 Other information

Not applicable to substances

12 SECTION 12: ECOLOGICAL INFORMATION

12.1 **Toxicity**

Toxicity of ingredients

bis-[4-(2,3-epoxipropoxi)phenyl]propane

LC50 Oncorhynchus mykiss (Rainbow trout) 2 mg/l/96h

EC50 Daphnia magna (Big water flea) 1,8 mg/l/48 h

NOEC Daphnia magna (Big water flea) 0,55 mg/l/ 21 day(s)

EC50 Selenastrum capricornutum 11 mg/l/72 h

Toxicity of mixture

Toxic to aquatic life with long lasting effects

In order to minimise long term global pollution consideration should be given to:

- Reduction in consumption of disposable products and packaging.
- Participation in recycling activities

12.2 **Persistence and degradability**

bis-[4-(2,3-epoxipropoxi)phenyl]propane Biodegradation: 12% 28 day(s) Not readily biodegradable

12.3 **Bioaccumulative potential**

bis-[4-(2,3-epoxipropoxi)phenyl]propane BCF 100 - 3000

12.4 **Mobility in soil**

The mobility of the substance depends on their hydrophilic and hydrophobic properties and abiotic and biotic conditions of soil, including its structures, climatic conditions, seasons (in Poland, in a variable moderate climate) and soil organisms, mainly (bacteria, fungi, algae, invertebrates).

12.5 **Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6 **Endocrine disrupting properties**

The product shall not contain ingredients included on the list established in accordance with Article 59(1) as having endocrine disrupting properties or ingredients with endocrine disrupting properties according to the criteria laid down in Regulation 2017/2100/EU or Regulation 2018/605/EU in concentrations equal to or greater than 0.1%.

12.7 **Other adverse effects**

The mixture is not classified as hazardous to the ozone layer. There should be considered the possibility of other harmful effects of the individual components of the mixture on the environment. (eg. the ability of disrupting endocrine , the impact of global warming potential). Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground

13 SECTION 13: DISPOSAL CONSIDERATIONS

13.1 **Waste treatment methods**

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional or local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction

Hazardous waste: Yes

Disposal methods for the product: dispose in accordance with applicable regulations. Do not introduce into drains. Residues store in sealed containers. .

Disposal methods for used packing: reuse/recycle/eliminate empty containers in accordance with the local legislation. Only completely emptied packaging can be recycled.

Legal basis: Directive 2008/98/EC as amended, 94/62/EC as amended.

14 SECTION 14: TRANSPORT INFORMATION

14.1 **UN number or ID number**

ADR/RID/IMDG/IATA: UN3082

14.2 **UN proper shipping name**

ADR/RID/IMDG/IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Special provisions 274: EPOXY RESIN

14.3 **Transport hazard class (es)**

ADR/RID/IMDG/IATA: 9

14.4 **Packing group**

ADR/RID/IMDG/IATA: III

14.5 **Environmental hazards**

ADR/RID/IMDG/IATA: The mixture is hazardous for the environment in accordance with the criteria included in transport regulations and in accordance with the criteria covered by the UN Model Regulations includes symbol 5.2.1.8.3 ADR and the entry in the shipping document compliant with 5.4.1.1.18.

Special regulation – label the article (unit packaging over 5 L, IBC and tanks) with the symbol compliant with 5.2.1.3 ADR.

Based on the regulation 5.4.1.1.18 ADR, special regulations regarding the carriage of materials hazardous for the environment are in force, so the shipping document (CMR) should include an additional entry "ENVIRONMENTALLY HAZARDOUS" or "MARINE POLUTANT''.

14.6 **Special precautions for user**

ADR Regulated

Tunnel restriction code:	[-]
Transport category:	3
Limited Quantity:	5 L

Packing instructions:	'P001 IBC03 LP01 R001
Special provisions	'274;335;375;601; CV13
IMDG Regulated	
Special provisions	274.335.969
EmS:	F-A, S-F
Stowage and handling	Category A
Limited Quantity:	5L
Packing instructions:	P001; LP01; IBC03
IATA Regulated	
IATA (Passenger)	
EQ (IATA) :	E1
Ltd Qty Pkg Inst. (IATA) :	Y964
Ltd Qty Max Net Qty/Pkg:	30 kg G
Pkg Inst	964
Max Net Qty/Pkg	450L
IATA (Cargo)	
Pkg Inst :	964
Max Net Qty/Pkg	450L
Special provisions (IATA) :	A97.A158.A197.A215
ERG Code :	9L

14.7 **Maritime transport in bulk according to IMO instruments**

Not applicable .

15 SECTION 15: REGULATORY INFORMATION

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

Regulation (EC) No. 1907/2006 (REACH), Annex XVII (restrictions	Mixture: no: 3;75

2012/18/EU (Seveso III)	**E2 environmental hazards (hazardous to the aquatic environment, cat. 2** Qualifying quantity (tonnes) for the application of lower and upper-tier requirements 200 500

Other legislation:

1. **1907/2006/EC** Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC
2. **1272/2008/EC** of the Regulation of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures - amending and repealing Directive 67/548/EEC and 1999/45/EC, and Regulation (EC) No 1907/2006.
3. **2018/669/UE** Commission Regulation (EU) 2018/669 of 16 April 2018 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixturesText with EEA relevance.

4. **790/2009/EC** of 10 August 2009 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures.
5. **2008/98/EC** Directive of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives
6. **94/62/EC** Commission Directive 2013/2/EUof 7 February 2013;amending Annex I to Directive 94/62/EC of the European Parliament and of the Council on packaging and packaging waste
7. **2015/830/EU** Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
8. **2013/10/EU** Commission Directive of 19 March 2013 amending Council Directive 75/324/EEC on the approximation of the laws of the Member States relating to aerosol dispensers in order to adapt its labelling provisions to Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures Text with EEA relevance
9. **Commission** Regulation (EU) **2020/878** of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.2 **Chemical safety assessment**

The supplier has not assessed chemical safety It is not required for the mixture.

16 SECTION 16: OTHER INFORMATION

The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer. They are neither a quality description of the product nor a guarantee of particular features. They are to be treated as aid to safety in transport, storage and usage of the product. That does not free the user from the responsibility of improper usage of the information above and also of improper compliance with the law norms in the field.

Safety Data Sheet made by: **mgr Małgorzata Krenke; Feed Reach Consulting" www.frc.com.pl**

Other data

Classification was based on physicochemical studies and data on hazardous substances calculation method under the guidance of Regulation 1272/2008/EC (CLP) as amended. The acute toxicity estimate (ATEmix) was determined using the appropriate conversion value from Table 3.1.2 in Annex I to CLP.

Classification in line with The Regulation (EC) No. 1272/2008		
H319	Eye Irrit 2	calculation method
H315	Skin Irrit 2	calculation method
H317	Skin Sens 1	calculation method
H411	Aquatic Chronic 2	calculation method

H (hazard) phrases specified in point 2 and 3 hereof:

H315	Causes skin irritation.
H319	Causes serious eye irritation
H317	May cause an allergic skin reaction.

H411	Toxic to aquatic life with long lasting effects.

Explanation of returns

ATE	Acute Toxicity Estimate
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
AND	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CEN	European Committee for Standardisation
C&L	Classification and Labelling
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
CAS#	Chemical Abstracts Service number
CMR	Carcinogen, Mutagen, or Reproductive Toxicant
CSA	Chemical Safety Assessment
DNEL	Derived No Effect Level
DPD	Dangerous Preparations Directive 1999/45/EC
ECHA	European Chemicals Agency
EC-Number	EINECS and ELINCS Number (see also EINECS and ELINCS)
EEC	European Economic Community
EINECS	European Inventory of Existing Commercial Substances
ELINCS	European List of notified Chemical Substances
GHS	Globally Harmonized System
IATA	International Air Transport Association
ICAO-TI	Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG	International Maritime Dangerous Goods
IMSBC	International Maritime Solid Bulk Cargoes
IUCLID	International Uniform Chemical Information Database
IUPAC	International Union for Pure Applied Chemistry
Know	octanol-water partition coefficient
LC50	Lethal Concentration to 50 % of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
LoW	List of Wastes (see http://ec.europa.eu/environment/waste/framework/list.htm)
MSDS	Material Safety Data Sheet
OEL	Occupational Exposure Limit
PBT	Persistent, Bioaccumulative and Toxic substance
PEC	Predicted Effect Concentration
PNEC(s)	Predicted No Effect Concentration(s)
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
STOT	Specific Target Organ Toxicity
(STOT) RE	Repeated Exposure
(STOT) SE	Single Exposure
SVHC	Substances of Very High Concern
UFI	Unique Formula Identifier
UN	United Nations
vPvB	Very Persistent and Very Bioaccumulative

Training Before commencing working with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo a proper workplace training.

SAFETY DATA SHEET

chemifix

i-pour Pro Hardener

Date of issue: 21.08.2023

VERSION: 1.0/EN

in accordance the Commission Regulation (EU) No **2020/878** of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

1 SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

i-pour Pro Hardener

UFI : A600-F0VM-T001-5498

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

Identified uses: Uses in coatings Curing agent for epoxy system

Uses advised against:. Every way of using not mentioned above or in the point 7.3.

1.3 Details of the supplier of the safety data sheet

Chemifix Oy
Hämeenkatu 26 A
33200 Tampere, Finland
Telephon: +491735164019
Email: Matthew.smith@chemifix.com

1.4 Emergency telephone number

112 (emergency telephone number). 998 (Fire Brigade), 999 (Medical Rescue Service),

Emergency telephone number

Country	Official advisory body	Address	Emergency number	Remark
Austria	Vergiftungsinformationszentra le (Poisons Information Centre)	Stubenring 6 1010 Wien	+43 1 406 43 43	
Belgium	Centre Anti-Poisons/ Antigifcentrum c/o Hôpital Central de la Base – Reine Astrid	Rue Bruyn 1 B -1120 Bruxelles/Brussel	+32 70 245 245	Please dial: 070 245245 for any urgent questions about intoxication (free of charge 24/7), if not accessible, dial: 02 264 96 30 (standard fee)
Bulgaria	Национален токсикологичен информационен център (National Toxicological Information Centre) Многопрофилна болница за активно лечение и спешна медицина "Н.И.Пирогов" (National Clinical Toxicology Centre), Emergency Medical Institute "Pirogov"	21 Totleben Boulevard 1606 SOFIA	+359 2 9154 409	
Croatia	Centar za kontrolu otrovanja Institut za medicinska istraživanja i medicinu rada	Ksaverska Cesta 2 p.p. 291 10000 Zagreb	+385 1 234 8342	
Cyprus	Κέντρου Δηλητηριάσεων		1401	Operating hours 24 hours / 24 hours, 7 days a week
Czech Republic	Toxikologickéinformačnístředisko Klinikapracovníholékařství VFN a 1. LF UK	Na Bojišti 1 120 00 Praha 2	+420 224 919 293 +420 224 915 402	
Denmark	Giftlinjen Bispebjerg Hospital	Bispebjerg Bakke 23 2400 København NV	+45 82 12 12 12	
Estonia	Mürgistusteabekeskus	Gonsiori 29 15027 Tallinn	16662 +372 626 93 90	
Finland	**Myrkytystietokeskus**	**Stenbäckinkatu 9 PO BOX 100 29 Helsinki**	**+358 9 471 977 +358 9 4711**	
France	Centre Antipoison et de Toxicovigilance de Paris Hôpital Fernand Widal	200 rue du Faubourg Saint-Denis 75475 Paris Cedex 10	+33 1 40 05 48 48	
France	Centre Antipoison et de Toxicovigilance de Marseille Hôpital Sainte Marguerite	270 boulevard de Sainte Marguerite 13274 Marseille Cedex 09	+33 4 91 75 25 25	
Germany	Giftnotruf München Toxikologische Abteilung der II. Med. Klinik und Poliklinik rechts der Isar der Technischen Universität München	Ismaninger Straße 22 81675 München	+49 (0) 89 19240	
Germany	Giftnotruf der Charité CBF, Haus VIII (Wirtschaftgebäude), UG	Hindenburgdamm 30 12203 Berlin	+49 (0) 30 19240	
Greece	Poisons Information Centre Children's Hospital P&A Kyriakou	11762 Athens	+30 2 10 779 3777	
Hungary	Országos Kémiai Biztonsági Intézet Egészségügyi Toxikológiai	Nagyvárad tér 2. 1437 Budapest, Pf. 839	+36 80 20 11 99	

	Tájékoztató Szolgálat	1097 Budapest		
Iceland	Eitrunarmiðstöð Landspítali	Fossvogi 108 Reykjavik	+354 543 22 22	
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
Italy	Centro Antiveleni Dipartimento di Tossicologia Clinica, Universita Cattolica del Sacro Cuore	Largo Agostino Gemelli 8 168 Roma	+39 06 305 4343	
Latvia	Valsts Toksikoloģijas centrs, Saindēšanās un zāļu informācijas centrs	Hipokrāta 2 1038 Rīga	+371 67 04 24 73	
Lithuania	Apsinuodijimų informacijos biuras	Birutės g. 56 8110 Vilnius	+370 5 236 20 52 +370 687 53378	
Luxembourg	Centre Anti-Poisons/ Antigifcentrum c/o Hôpital Central de la Base - Reine Astrid	Rue Bruyn 1 1120 Bruxelles/Brussel	+352 8002 5500	
Malta	Medicines & Poisons Info Office	Mater Dei Hospital MSD Msida	+356 2545 6504	
Netherlands	Nationaal Vergiftigingen Informatie Centrum Universitair Medisch Centrum Utrecht, Het Nationaal Vergiftigingen Informatie Centrum (NVIC) informeert (dieren-) artsen, apothekers en andere professionele hulpverleners over de mogelijke gezondheidseffecten en behandelingsmogelijkheden bij vergiftigingen. Het NVIC is hiervoor dag en nacht bereikbaar, zowel telefonisch als via internet	Huispostnummer B.00.118 PO Box 85500 3508 GA Utrecht	+31 30 274 88 88	Only for thepurpose of informing medical personnel in cases of acute intoxications
Norway	Giftinformasjonen Helsedirektoratet	P.O. Box 7000 St. Olavs Plass 130 Oslo	+47 22 591300	
Poland	National Poisons Information Centre The Nofer Institute of Occupational Medicine (Łódź)	ul. Teresy 8 P.O. BOX 199 90950 Łódź	+48 42 63 14 724	
Portugal	Centro de InformaçãoAntivenenosInstituto Nacional de Emergência Médica	Rua Almirante Barroso, 36 1000-013 Lisboa	+351 808 250 143	
Romania	Department of Clinical Toxicology Spitalul de Urgenta Floreasca	Calea Floreasca Bucuresti	+40 21 230 8000	
Serbia	Nacionalni centar za kontrolu trovanja - VMA	Crnotravska 17 11000 Beograd	+381 11 360 84 40 (24h) +381 11 3672 187	
Slovakia	Národné toxikologickéinformačné centrum UniverzitnánemocnicaBratislava, pracoviskoKramáre, Klinikapracovnéholekárstva a toxikológie	Limbová 5 833 05 Bratislava	+421 2 54 77 41 66	
Slovenia	Center za kliničnotoksikologijo in farmakologijoInternaklinika, UKCL	Zaloška cesta 7 1525 Ljubljana	+386 41 650 500	
Spain	Servicio de Información Toxicológica Instituto Nacional de Toxicología y Ciencias Forenses, Departamento de Sevilla	Carretera de San Jerónimo Km 0,4 41080 Sevilla	+34 91 562 04 20	(Toxicological emergencies only). Information in Spanish (24/7)
Sweden	Giftinformationscentralen	Box 60 500 171 76 Stockholm	112 – begär Giftinformation +46 10 456 6700 (Från utlandet)	(from abroad: +41 44 251 51 51) non urgent inquiry: +41 44 251 66 66
Switzerland	Tox Info Suisse	Freiestrasse 16 8032 Zürich	145	

2 SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Physical and chemical hazards:

This mixture does not present a physical hazard. Refer to the Recommendations regarding to the other products present on the site.

Health hazards

Acute toxicity (oral), Hazard Category 4 [Acute Tox. 4]

Harmful if swallowed (H302)

Acute toxicity (dermal), Hazard Category 4 [Acute Tox. 4]
Harmful in contact with skin. (H312)
Serious eye damage/eye irritation, (Category 1) [Eye Dam 1]
Causes serious eye damage (H318)
Environmental hazards:
Hazardous to the aquatic environment — Chronic Hazard, Category 2 [Aquatic Chronic 2]
Toxic to aquatic life with long lasting effects. (H411)

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008
Pictogram

GHS05 **GHS07** **GHS09**

Signal word: Danger

Supplemental Hazard Statements on labels
Contains: Propylidynetrimethanol, propoxylated, reaction products with ammonia
Hazard statement(s)
H318 Causes serious eye damage
H302+H312 Harmful if swallowed or in contact with skin
H411 Toxic to aquatic life with long lasting effects.
Precautionary statement(s)
General
P102 Keep out of reach of children.
Prevention:
P264 Wash hands thoroughly after handling
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor
P302+P352 IF ON SKIN: Wash with plenty of water
P391 Collect spillage.

2.3 Other hazards

The substances contained in the product do not meet criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation.
The product does not contain substances included in the list established in accordance with Article 59 (1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 % by weight.

3 SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 **Substances:**

Not applicable

3.2 **Mixtures:**

Substance identifier	Name of the substance	Weight fraction %	Classification in line with The Regulation (EC) No. 1272/2008		
			Signal Word Code(s)	Hazard Class and Category Code(s)	Hazard Statement Code(s)
CAS No: 39423-51-3 EC No: 500-105-6 Index No: REACH-Reg:	Propylidynetrimethanol, propoxylated, reaction products with ammonia	60<x<100	GHS05 GHS07 GHS09 Dgr	Eye Dam 1 Acute Tox. 4 Acute Tox. 4 Aquatic Chronic 2 **Specific Conc. Limits:** ATE - oral : 550 mg/kg bw)	H318 H302 H312 H411

Full H phrases are specified in point 16 hereof.

4 SECTION 4: FIRST AID MEASURES

4.1 **Description of first aid measures**

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove contaminated, saturated clothing immediately. Wash thoroughly the body (shower or bath). Remove affected person from the danger area and lay down. Transport affected person in lying position, in case of shortness of breath in half-sitting position. Put victim at rest, cover with a blanket and keep warm. Do not leave affected person unattended.

If inhaled: Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately

In case of skin contact: After contact with skin, wash immediately with plenty of water and soap. In case of skin reactions, consult a physician. In case of skin irritation, consult a physician

In case of eye contact: In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing. Protect uninjured eye.

If swallowed: If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do NOT induce vomiting

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

Contact with skin: Harmful in contact with skin. Causes skin irritation In the case of prolonged contact, skin redness, irritation. May cause an allergic skin reaction.

Eye contact: Serious burns, cornea and conjunctiva damage leading to irreversible vision loss and even blindness.

Ingestion: Harmful if swallowed. Possible abdominal pain, nausea, vomiting

Inhalation: Possible irritation of the mucous membranes of respiratory system, cough

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

Physician makes a decision regarding further medical treatment after thoroughly examination of the injured. Treat symptomatically

5 SECTION 5: FIREFIGHTING MEASURES

5.1 **Extinguishing media**

Suitable extinguishing media:

Adapt extinguishing media to the environment

Unsuitable extinguishing media:

Jet water.

5.2 **Special hazards arising from the substance or mixture**

During the combustion, toxic gases may be generated, such as carbon monoxide, Carbon dioxide (CO_2), Ammonia (NH_3); organic vapors, etc. Avoid inhalation of combustion products that may pose a health risk.

5.3 **Advice for firefighters**

The security measures typical in case of fire. Do not stay in the danger zone without adequate fireresistant clothing and chemical-contained breathing apparatus with independent air circulation. Containers not consumed by fire but exposed to fire should be cooled down with sprayed water and removed from the risk area, if possible. Do not allow extinguishing water entering drains, surface water and groundwater .

6 SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 **Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel

Limit the access of third persons to the affected area until respective cleaning operations are finished. In the case of large releases, isolate the affected area. Ensure that the effects of the failure are eliminated by trained staff only. Use personal protective equipment. Avoid contact with eyes. Avoid breathing vapors.

For emergency responders

Ensure that breakdown and its results are only trained personnel. Use personal protective equipment.

6.2 **Environmental precautions**

Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 **Methods and material for containment and cleaning up**

For containment

Cover drains. Stop leak if safe to do so. Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Take up mechanically, placing in appropriate containers for disposal.

For cleaning up

Collect in closed and suitable containers for disposal. Clean contaminated articles and floor according to the environmental legislation

6.4 **Reference to other sections**

Appropriate conduct with waste product – section 13. Personal protection equipment – section 8.

7 SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Handle in accordance with good occupational hygiene and safety practices. Do not eat, drink or smoke while working with the product. Avoid eye contamination and direct skin contact. Before break and afterwork wash hands. Do not inhale vapors. Ensure adequate ventilation. Use in accordance with its intended purpose. Keep the unused containers tightly closed. Containers that are opened should be properly resealed and kept upright to prevent leakage. Keep away from sources of ignition - No smoking. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames

Avoid exceeding the given occupational exposure limits (see section 8).

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Only use containers specifically approved for the substance/product. Protect containers against damage. Keep container tightly closed and in a well-ventilated place.

Packaging materials

Unsuitable container/equipment material: Copper Alloy, containing copper

Hints on joint storage

Storage class (TRGS 510) : 10

Keep away from

Keep away from food, drink and animal feedingstuffs

7.3 Specific end use(s)

No information about uses other than mentioned in subsection 1.2.

8 SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters

Product does not contain any components with occupational exposure limit values at working place.

Propylidynetrimethanol, propoxylated, reaction products with ammonia	
DNEL	
Data for WORKERS	
INHALATION Exposure; Systemic Effects; Long-term:	14.1 mg/m³
DERMAL Exposure Systemic Effects; Long-term	1.6 mg/kg bw/day
PNEC	
Freshwater	4.4 µg/L
Intermittent releases (freshwater)	44 µg/L
Marine water	440 ng/L
Intermittent releases (marine water)	-
Sewage treatment plant (STP)	10 mg/L
Sediment (freshwater)	22.4 µg/kg sediment dw
Sediment (marine water)	2.24 µg/kg sediment dw
Air	No hazard identified
Soil	1.9 µg/kg soil dw

Recommended monitoring procedures

Monitoring procedures should be used fot concentrations of hazardous components in the air. Air quality control procedures should be used in the workplace - as long as they are available and reasonable for the job - in accordance with the relevant European Standards, taking into account the conditions prevailing at the site of exposure and corresponding measurement methodologies adapted to the conditions work.

8.2 **Exposure controls**

8.2.1 Appropriate engineering controls

Provide for sufficient ventilation. Technical measures and the application of suitable work processes have priority over personal protection equipment

8.2.2 Individual protection measures, such as personal protective equipment

Respiratory protection : Not required in case of adequate ventilation. se a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.[Combination filtering device Filter type: A]

Hand and body protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Suitable gloves type : Gloves with long cuffs
Suitable material : NBR (Nitrile rubber) PVC (polyvinyl chloride) CR (polychloroprene, chloroprene rubber) Butyl caoutchouc (butyl rubber) FKM (fluoro rubber)
Wearing time with occasional contact (splashes) : > 10 min
Wearing time with permanent contact : > 480 min

Eye protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. [Eye glasses with side protection DIN-/EN-Norms : EN 166/ **Provide eye shower and label its location conspicuously**]

Body Protection: Personal protective equipment for the body should be selected based on the task being performer and the risks involved and should be approved by a specialist before handling this product.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Hygiene at work: Apply general hygiene at work rules. After work, remove contaminated clothes and wash thoroughly the whole body. Wash your hands and face during breaks. Restrain from drinking and eating or smoking at work.

8.2.3 Environmental exposure controls

Avoid release to the environment, do not enter the sewage system. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

9 SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 **Information on basic physical and chemical properties**

Physical state:	Liquid
Colour:	Light yellow
Odour:	Amines
Melting point/freezing point:	-20°C

Boiling point or initial boiling point and boiling range:	230°C
Flammability:	non-flammable
Partition coefficient n-octanol/water (log value):	-1,13
Lower and upper explosion limit:	not determined
Flash point:	320°C
Auto-ignition temperature:	not determined
Decomposition temperature:	230°C
pH:	11,5
Kinematic viscosity:	not determined
Solubility:	0,562 g/cm^3
Vapour pressure:	not determined
Density and/or relative density:	0,97 g/cm^3
Relative vapour density:	not determined
Particle characteristics:	Inapplicable –[liquid]

9.2 **Other information**

9.2.1 Information with regard to physical hazard classes

Information unavailable

9.2.2 Other safety characteristics

VOC-value : 0 g/l

10 SECTION 10: STABILITY AND REACTIVITY

10.1 **Reactivity**

No reactivity under recommended storage and handling conditions.

10.2 **Chemical stability**

Stable under recommended storage and usage conditions.

10.3 **Possibility of hazardous reactions**

Violent reaction with: Oxidising agent, strong. Acid

10.4 **Conditions to avoid**

Keep away from heat

10.5 **Incompatible materials**

Oxidising agent, strong. Strong acid

10.6 **Hazardous decomposition products**

Thermal decomposition or incomplete combustion may produce carbon monoxide, nitrous gases and irritating fumes.
Reference to other sections: 5.2.

11 SECTION 11: TOXICOLOGICAL INFORMATION

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

Information regarding acute and/or delayed results of the exposure was defined on the basis of the information on product's classification and/or toxicological studies as well as the experience and knowledge of the manufacturer

Acute toxicity of mixtures

ATE $_{MIX}$ oral (mg / kg): 550 **Harmful if swallowed**

ATE $_{MIX}$ dermal (mg/kg): >1.000 x<2000 **Harmful in contact with skin**

ATE $_{MIX}$ inhalation (mg / l / 4h):>20 Based on available information, classification criteria are not met.

*ATEmix value was calculated using relevant converted acute toxicity point estimate included in 3.1.2 table from Regulation 1272/2008/EC.

Skin corrosion/irritation
Based on available information, classification criteria are not met.
Serious eye damage/irritation
Causes serious eye damage
Respiratory or skin sensitisation
Based on available information, classification criteria are not met.
Germ cell mutagenicity
Based on available information, classification criteria are not met.
Carcinogenicity
Based on available information, classification criteria are not met.
Reproductive toxicity
Based on available information, classification criteria are not met.
Specific target organ toxicity - single exposure
Based on available information, classification criteria are not met.
Specific target organ toxicity - repeated exposure
Based on available information, classification criteria are not met.
Aspiration hazard
Based on available information, classification criteria are not met.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Contact with skin:	Harmful in contact with skin. Causes skin irritation In the case of prolonged contact, skin redness, irritation. May cause an allergic skin reaction.
Eye contact:	Serious burns, cornea and conjunctiva damage leading to irreversible vision loss and even blindness.
Ingestion:	Harmful if swallowed. Possible abdominal pain, nausea, vomiting
Inhalation:	Possible irritation of the mucous membranes of respiratory system, cough

11.1.1 Endocrine disrupting properties

The components of the mixture do not affect the functioning of the hormonal system in accordance with the evaluation criteria defined in the Regulations: (EC) No 1907/2006, (EU) 2017/2100, (EU) 2018/605

11.1.2 Other information

Not applicable to substances

12 SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity of ingredients

Propylidynetrimethanol, propoxylated, reaction products with ammonia
LC50 fish > 100 mg/l/ 96 h
EC50 Daphnia 13 mg/l/48h
ErC50 Algae 4,4 mg/l/72 h
NOEC Algae 1 mg/l/ 72 h
EC50 Toxicity to microorganisms 1000 mg/l/ 30 min

Toxicity of mixture

Toxic to aquatic life with long lasting effects
In order to minimise long term global pollution consideration should be given to:

- Reduction in consumption of disposable products and packaging.

- Participation in recycling activities

12.2 **Persistence and degradability**

Propylidynetrimethanol, propoxylated, reaction products with ammonia: Not readily biodegradable <5% 28 days

12.3 **Bioaccumulative potential**

Propylidynetrimethanol, propoxylated, reaction products with ammonia
< 0 logPow

12.4 **Mobility in soil**

The mobility of the substance depends on their hydrophilic and hydrophobic properties and abiotic and biotic conditions of soil, including its structures, climatic conditions, seasons (in Poland, in a variable moderate climate) and soil organisms, mainly (bacteria, fungi, algae, invertebrates).

12.5 **Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6 **Endocrine disrupting properties**

The product shall not contain ingredients included on the list established in accordance with Article 59(1) as having endocrine disrupting properties or ingredients with endocrine disrupting properties according to the criteria laid down in Regulation 2017/2100/EU or Regulation 2018/605/EU in concentrations equal to or greater than 0.1%.

12.7 **Other adverse effects**

The mixture is not classified as hazardous to the ozone layer. There should be considered the possibility of other harmful effects of the individual components of the mixture on the environment. (eg. the ability of disrupting endocrine , the impact of global warming potential). Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground

13 SECTION 13: DISPOSAL CONSIDERATIONS

13.1 **Waste treatment methods**

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional or local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction

Hazardous waste: Yes

Disposal methods for the product: dispose in accordance with applicable regulations. Do not introduce into drains. Residues store in sealed containers. .

Disposal methods for used packing: reuse/recycle/eliminate empty containers in accordance with the local legislation. Only completely emptied packaging can be recycled.

Legal basis: Directive 2008/98/EC as amended, 94/62/EC as amended.

14 SECTION 14: TRANSPORT INFORMATION

14.1 **UN number or ID number**

ADR/RID/IMDG/IATA: UN3082

14.2 **UN proper shipping name**

ADR/RID/IMDG/IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Special provisions 274: Propylidynetrimethanol, propoxylated, reaction products with ammonia

14.3 **Transport hazard class (es)**

ADR/RID/IMDG/IATA: 9

14.4 **Packing group**

ADR/RID/IMDG/IATA: III

14.5 **Environmental hazards**

ADR/RID/IMDG/IATA: The mixture is hazardous for the environment in accordance with the criteria included in transport regulations and in accordance with the criteria covered by the UN Model Regulations includes symbol 5.2.1.8.3 ADR and the entry in the shipping document compliant with 5.4.1.1.18.

Special regulation – label the article (unit packaging over 5 L, IBC and tanks) with the symbol compliant with 5.2.1.3 ADR.

Based on the regulation 5.4.1.1.18 ADR, special regulations regarding the carriage of materials hazardous for the environment are in force, so the shipping document (CMR) should include an additional entry "ENVIRONMENTALLY HAZARDOUS" or "MARINE POLUTANT''.

14.6 **Special precautions for user**

ADR Regulated

Tunnel restriction code:	[-]
Transport category:	3
Limited Quantity:	5 L
Packing instructions:	'P001 IBC03 LP01 R001
Special provisions	'274;335;375;601; CV13

IMDG Regulated

Special provisions	274.335.969
EmS:	F-A, S-F
Stowage and handling	Category A
Limited Quantity:	5L
Packing instructions:	P001; LP01; IBC03

IATA Regulated

IATA (Passenger)

EQ (IATA) :	E1
Ltd Qty Pkg Inst. (IATA) :	Y964
Ltd Qty Max Net Qty/Pkg:	30 kg G
Pkg Inst	964
Max Net Qty/Pkg	450L

IATA (Cargo)

Pkg Inst :	964
Max Net Qty/Pkg	450L
Special provisions (IATA) :	A97.A158.A197.A215
ERG Code :	9L

14.7 **Maritime transport in bulk according to IMO instruments**

Not applicable .

15 SECTION 15: REGULATORY INFORMATION

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

Regulation (EC) No. 1907/2006 (REACH), Annex XVII (restrictions	Mixture: no: 3;75

2012/18/EU (Seveso III)	**E2 environmental hazards (hazardous to the aquatic environment, cat. 2** Qualifying quantity (tonnes) for the application of lower and upper-tier requirements 200 500

Other legislation:

1. **1907/2006/EC** Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC
2. **1272/2008/EC** of the Regulation of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures - amending and repealing Directive 67/548/EEC and 1999/45/EC, and Regulation (EC) No 1907/2006.
3. **2018/669/UE** Commission Regulation (EU) 2018/669 of 16 April 2018 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixturesText with EEA relevance.
4. **790/2009/EC** of 10 August 2009 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures.
5. **2008/98/EC** Directive of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives
6. **94/62/EC** Commission Directive 2013/2/EUof 7 February 2013;amending Annex I to Directive 94/62/EC of the European Parliament and of the Council on packaging and packaging waste
7. **2015/830/EU** Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
8. **2013/10/EU** Commission Directive of 19 March 2013 amending Council Directive 75/324/EEC on the approximation of the laws of the Member States relating to aerosol dispensers in order to adapt its labelling provisions to Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures Text with EEA relevance
9. **Commission** Regulation (EU) **2020/878** of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.2 Chemical safety assessment

The supplier has not assessed chemical safety It is not required for the mixture.

16 SECTION 16: OTHER INFORMATION

The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer. They are neither a quality description of the product nor a guarantee of particular features. They are to be treated as aid to safety in transport, storage and usage of the product. That does not free the user from the responsibility of improper usage of the information above and also of improper compliance with the law norms in the field.

Safety Data Sheet made by: **mgr Małgorzata Krenke; Feed Reach Consulting" www.frc.com.pl**

Other data

Classification was based on physicochemical studies and data on hazardous substances calculation method under the guidance of Regulation 1272/2008/EC (CLP) as amended. The acute toxicity estimate (ATEmix) was determined using the appropriate conversion value from Table 3.1.2 in Annex I to CLP.

Classification in line with The Regulation (EC) No. 1272/2008		
H318	Eye Dam 1	calculation method
H312	Acute Tox 4	calculation method
H302	Acute Tox 4	calculation method
H411	Aquatic Chronic 2	calculation method

H (hazard) phrases specified in point 2 and 3 hereof:

H318	Causes serious eye damage
H302	Harmful if swallowed
H312	Harmful in contact with skin.
H411	Toxic to aquatic life with long lasting effects.

Explanation of returns

ATE	Acute Toxicity Estimate
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
AND	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CEN	European Committee for Standardisation
C&L	Classification and Labelling
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
CAS#	Chemical Abstracts Service number
CMR	Carcinogen, Mutagen, or Reproductive Toxicant
CSA	Chemical Safety Assessment
DNEL	Derived No Effect Level
DPD	Dangerous Preparations Directive 1999/45/EC
ECHA	European Chemicals Agency
EC-Number	EINECS and ELINCS Number (see also EINECS and ELINCS)
EEC	European Economic Community
EINECS	European Inventory of Existing Commercial Substances
ELINCS	European List of notified Chemical Substances
GHS	Globally Harmonized System
IATA	International Air Transport Association
ICAO-TI	Technical Instructions for the Safe Transport of Dangerous Goods by Air

IMDG	International Maritime Dangerous Goods
IMSBC	International Maritime Solid Bulk Cargoes
IUCLID	International Uniform Chemical Information Database
IUPAC	International Union for Pure Applied Chemistry
Know	octanol-water partition coefficient
LC50	Lethal Concentration to 50 % of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
LoW	List of Wastes (see http://ec.europa.eu/environment/waste/framework/list.htm)
MSDS	Material Safety Data Sheet
OEL	Occupational Exposure Limit
PBT	Persistent, Bioaccumulative and Toxic substance
PEC	Predicted Effect Concentration
PNEC(s)	Predicted No Effect Concentration(s)
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
STOT	Specific Target Organ Toxicity
(STOT) RE	Repeated Exposure
(STOT) SE	Single Exposure
SVHC	Substances of Very High Concern
UFI	Unique Formula Identifier
UN	United Nations
vPvB	Very Persistent and Very Bioaccumulative

Training Before commencing working with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo a proper workplace training.