SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1272/2008 and Regulation (EC) No. 1907/2006 as amended by Regulation (EU) No. 2020/878

3-20741

Issuing Date 06-Jul-2023 **Revision date** 06-Jul-2023 **Revision Number** 33

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

1.1. Product identifier

Product Name **3-20741**

Unique Formula Identifier (UFI) KYJ0-Y02J-R004-22YC
Pure substance/mixture Mixture

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

Recommended use Adhesives and/or sealants.

Uses advised against Consumer use.

1.3. Details of the supplier of the safety data sheet

Manufacturer
Dymax Corporation
318 Industrial Lane
Torrington, CT 06790
Tel: 860-482-1010
Fax: 860-496-0608

Manufacturing sites
Dymax Europe GmbH
Kasteler Strasse 45, Building G 359
65203 Wiesbaden, Germany
Phone: +49 (0) 611.962.7900
Fax: +49 (0) 611.962.9440

Supplier
Dymax Europe GmbH
Kasteler Strasse 45, Building G 359
65203 Wiesbaden, Germany
Phone: +49 (0) 611.962.7900
Fax: +49 (0) 611.962.9440

For further information, please contact

E-mail address Product_Regulatory_Europe@dymax.com

1.4. Emergency telephone number

Emergency Telephone Chemtrec @ 001-703-741-5970 (24hrs)

Austria +(43)-13649237	**Belgium** +(32)-28083237	**Bulgaria** +(359)-32570104
Croatia +(385)-17776920	**Czech Republic** +(420)-228880039	**Denmark** +(45)-69918573
Estonia +(372)-6681294	**Finland** +(358)-942419014	**France** +(33)-975181407
Germany 0800-181-7059	**Greece** +(30)-2111768478	**Hungary** +(36)-18088425
Ireland +(353)-19014670	**Italy** 800-789-767	**Latvia** +(371)-66165504
Lithuania +(370)-52140238	**Luxembourg** +(352)-20202416	**Netherlands** +(31)-858880596
Norway +(47)-21930678	**Poland** +(48)-223988029	**Portugal** +(351)-308801773
Romania (+40)-37-6300026	**Slovakia** +(423)-233057972	**Slovenia** +(386)-18888016
Spain 900-868538	**Sweden** +(46)-852503403	**United Kingdom** +(44)-870-8200418
Israel +(972)-37630639	**Russia** 8-800-100-6346	**Saudi Arabia** +(966)-8111095861
Switzerland +(41)-435082011	**Turkey** +(90)-212-7055340	**Ukraine** +(380)-947101374

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Serious eye damage/eye irritation	Category 1 - (H318)
Skin sensitisation	Category 1 - (H317)
Carcinogenicity	Category 2 - (H351)
Specific target organ toxicity — single exposure	Category 3 - (H335)
Category 3 - Respiratory irritation	
Specific target organ toxicity — repeated exposure	Category 2 - (H373)

2.2. Label elements

Signal word - Danger

Contains 1-vinyl-2-pyrrolidone, Isobornyl Acrylate

Hazard statements
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H335 - May cause respiratory irritation
H351 - Suspected of causing cancer
H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary Statements - EU (§28, 1272/2008)
P260 - Do not breathe dust/fume/gas/mist/vapours/spray
P280 - Wear protective gloves/protective clothing/eye protection/face protection. 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 or doctor
P362 + P364 - Take off contaminated clothing and wash it before reuse

Additional information
This product requires tactile warnings if supplied to the general public.

2.3. Other hazards

Causes mild skin irritation.

Product Information
Testing for acute and chronic aquatic effects determined no environmental classification is required. OECD Test No. 202: Daphnia sp., Acute Immobilisation Test.

PBT and vPvB assessment
The product does not contain any substance(s) classified as PBT or vPvB above the threshold of declaration.

Endocrine Disruptor Information
This product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	CAS	EC No (EU Index No)	REACH registration number	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
1-vinyl-2-pyrrolidone	88-12-0	(613-168-00-0) 201-800-4	-	25-39	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Acute Tox. 4 (H332) Eye Dam. 1 (H318) Carc. 2 (H351) STOT SE 3 (H335) STOT RE 2 (H373)
Isobornyl Acrylate	5888-33-5	(607-756-00-6) 227-561-6	01-2119957862-25-0011	5-9	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317) STOT SE 3 (H335) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
1-Propanone, 2-hydroxy-2-methyl-1-phenyl-	7473-98-5	231-272-0	-	1-<3	Acute Tox. 4 (H302) Aquatic Chronic 3 (H412)
Diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide	75980-60-8	(015-203-00-X) 278-355-8	-	<1	Repr. 2 (H361f)

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
1-vinyl-2-pyrrolidone	830	560			
Isobornyl Acrylate	4890	3000			
1-Propanone, 2-hydroxy-2-methyl-1-phenyl-	1694	6929			
Diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide		2000			

Full text of H- and EUH-phrases: see section 16

This product contains one or more candidate substance(s) of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Chemical name	CAS	SVHC candidates

Diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide	75980-60-8	X

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice Immediate medical attention is required. Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.

Inhalation Remove to fresh air. Get medical attention immediately if symptoms occur. IF exposed or concerned: Get medical advice/attention.

Eye contact Get immediate medical attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area.

Skin contact Wash off immediately with soap and plenty of water for at least 15 minutes. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a doctor.

Ingestion Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a doctor.

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

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

Symptoms Burning sensation. Itching. Rashes. Hives. Prolonged contact may cause redness and irritation.

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

Note to doctors May cause sensitisation in susceptible persons. Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical Product is or contains a sensitiser. May cause sensitisation by skin contact.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Other information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Take off contaminated clothing and wash it before reuse. Remove contaminated clothing and shoes. Avoid breathing vapours or mists. Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. Protect from light.

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children. Keep container tightly closed in a dry and well-ventilated place. Protect from light.

Storage class (TRGS 510) LGK 10.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
1-vinyl-2-pyrrolidone 88-12-0	-	H*	TWA: 0.05 ppm TWA: 0.23 mg/m^3	-	-
Chemical name	**Cyprus**	**Czech Republic**	**Denmark**	**Estonia**	**Finland**
1-vinyl-2-pyrrolidone 88-12-0	-	-	-	-	TWA: 0.1 ppm TWA: 0.5 mg/m^3
Chemical name	**France**	**Germany TRGS**	**Germany DFG**	**Greece**	**Hungary**
1-vinyl-2-pyrrolidone 88-12-0	TWA: 0.1 ppm	TWA: 0.005 ppm TWA: 0.025 mg/m^3 H*	TWA: 0.01 ppm TWA: 0.047 mg/m^3 Peak: 0.02 ppm Peak: 0.094 mg/m^3 *	-	-
Isobornyl Acrylate 5888-33-5	-	-	skin sensitizer	-	-
Chemical name	**Ireland**	**Italy MDLPS**	**Italy AIDII**	**Latvia**	**Lithuania**
1-vinyl-2-pyrrolidone 88-12-0	TWA: 0.05 ppm STEL: 0.15 ppm	-	TWA: 0.05 ppm TWA: 0.23 mg/m^3	TWA: 1 mg/m^3	-
Chemical name	**Portugal**	**Romania**	**Slovakia**	**Slovenia**	**Spain**
1-vinyl-2-pyrrolidone 88-12-0	TWA: 0.05 ppm	-	-	TWA: 0.05 mg/m^3 TWA: 0.01 ppm STEL: 0.02 ppm STEL: 0.1 mg/m^3 *	-
Chemical name	**Sweden**	**Switzerland**	**United Kingdom**		
1-vinyl-2-pyrrolidone 88-12-0	-	TWA: 0.02 ppm TWA: 0.09 mg/m^3 STEL: 0.04 ppm STEL: 0.18 mg/m^3 H*	-		

Biological occupational exposure limits
This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers
No information available

Derived No Effect Level (DNEL) - General Public
No information available.

Predicted No Effect Concentration (PNEC)
No information available.

8.2. Exposure controls

Engineering controls No information available.

Personal protective equipment

Eye/face protection	Tight sealing safety goggles.
Hand protection	Wear suitable gloves. Nitrile rubber, Butyl rubber.
Skin and body protection	Wear suitable protective clothing.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.
Environmental exposure controls	No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	transparent
Colour	colourless light yellow to
Odour	Characteristic.
Odour threshold	No information available

Property	**Values**	**Remarks • Method**
Melting point / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	101 - °C	Pensky-Martens Closed Cup (PMCC)
Autoignition temperature	240 °C	None known
Decomposition temperature		None known
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	1,250 cP	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapour pressure	No data available	None known
Relative density	No data available	None known
Bulk density	No data available	
Liquid Density	No data available	
Relative vapour density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

9.2.1. Information with regards to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data
Sensitivity to mechanical impact None.
Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials Strong acids. Strong bases. Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

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

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.

Eye contact Specific test data for the substance or mixture is not available. Causes serious eye damage. May cause irreversible damage to eyes.

Skin contact Specific test data for the substance or mixture is not available. May cause irritation. May cause sensitisation by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). Causes mild skin irritation.

Ingestion Specific test data for the substance or mixture is not available. Ingestion may cause

gastrointestinal irritation, nausea, vomiting and diarrhoea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Redness. Burning. May cause blindness. Itching. Rashes. Hives. Prolonged contact may cause redness and irritation.

Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	2,712.90 mg/kg
ATEmix (dermal)	3,556.70 mg/kg
ATEmix (inhalation-gas)	99,999.00 ppm
ATEmix (inhalation-vapour)	99,999.00 mg/l
ATEmix (inhalation-dust/mist)	5.27 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
1-vinyl-2-pyrrolidone	= 830 mg/kg (Rat)	= 560 mg/kg (Rabbit)	= 3070 mg/m³ (Rat) 4 h
Isobornyl Acrylate	= 4890 mg/kg (Rat)	> 3000 mg/kg (Rabbit)	-
1-Propanone, 2-hydroxy-2-methyl-1-phenyl-	= 1694 mg/kg (Rat)	= 6929 mg/kg (Rat)	-
Diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide	-	> 2000 mg/kg (Rat)	-

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

Skin corrosion/irritation May cause skin irritation. Classification based on data available for ingredients. Causes mild skin irritation.

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes burns. Causes serious eye damage.

Respiratory or skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity No information available.

Carcinogenicity Contains a known or suspected carcinogen. Classification based on data available for ingredients. Suspected of causing cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	European Union
1-vinyl-2-pyrrolidone	Carc. 2

Reproductive toxicity Contains a known or suspected reproductive toxin. Classification based on data available for ingredients.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

Chemical name	European Union
Diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide	Repr. 2

STOT - single exposure May cause respiratory irritation.

STOT - repeated exposure May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties
Endocrine disrupting properties No information available.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity The environmental impact of this product has not been fully investigated.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
1-vinyl-2-pyrrolidone	EC50: =780mg/L (72h, Desmodesmus subspicatus)	LC50 976 mg/L 96 h (Oncorhynchus mykiss)	-	EC50: =45mg/L (48h, Daphnia species)
Isobornyl Acrylate	ErC 50 = 2.7 mg/L 96h (Pseudokirchneriella subcapitata)	LC50: =0.704mg/L 96h (Danio rerio)	-	EC 50 = 1.1 mg/L 48 h (Daphnia magna)
Diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide	-	LC50 10 mg/l 48 h (Oryzias latipes)	-	-

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient
1-vinyl-2-pyrrolidone	0.4
Isobornyl Acrylate	4.52
1-Propanone, 2-hydroxy-2-methyl-1-phenyl-	1.62
Diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide	3.1

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB above the threshold of declaration.

Chemical name	PBT and vPvB assessment
1-vinyl-2-pyrrolidone	The substance is not PBT / vPvB
Isobornyl Acrylate	The substance is not PBT / vPvB
1-Propanone, 2-hydroxy-2-methyl-1-phenyl-	The substance is not PBT / vPvB
Diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

SECTION 14: Transport information

IATA

14.1 UN number or ID number Not regulated
14.2 Extended Proper Shipping Name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special precautions for user Special Provisions None

IMDG

14.1 UN number or ID number Not regulated
14.2 Extended Proper Shipping Name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special precautions for user Special Provisions None
14.7 Maritime transport in bulk according to IMO instruments No information available

RID

14.1 UN number or ID number	Not regulated
14.2 Extended Proper Shipping Name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user Special Provisions	None

ADR

14.1 UN number or ID number	Not regulated
14.2 Extended Proper Shipping Name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user Special Provisions	None

SECTION 15: Regulatory information

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

National regulations

France

Occupational Illnesses (R-463-3, France)

Chemical name	French RG number
1-vinyl-2-pyrrolidone - 88-12-0	RG 84

Germany

Water hazard class (WGK) slightly hazardous to water (WGK 1) Classification according to AwSV.

Netherlands

Chemical name	Netherlands - List of Carcinogens	Netherlands - List of Mutagens	Netherlands - List of Reproductive Toxins
Diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide	-	-	Fertility Category 2

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
1-vinyl-2-pyrrolidone - 88-12-0	75.	-
Diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide -	75.	-

75980-60-8		

Persistent Organic Pollutants
Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Not applicable

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Not Listed
AIIC	Complies
NZIoC	Complies

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AIICS - Australian Industrial Chemicals Introduction Scheme
NZIoC - New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3
H302 - Harmful if swallowed
H312 - Harmful in contact with skin
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H335 - May cause respiratory irritation
H351 - Suspected of causing cancer
H361f - Suspected of damaging fertility
H373 - May cause damage to organs through prolonged or repeated exposure
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

H412 - Harmful to aquatic life with long lasting effects

Legend
SVHC: Substances of Very High Concern for Authorisation:
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
vPvB: Very Persistent and very Bioaccumulative (vPvB) Chemicals

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitisers		

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	On basis of test data
Chronic aquatic toxicity	On basis of test data
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS
Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine’s PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 06-Jul-2023

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. 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.

End of Safety Data Sheet