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

1.1 Product identifiers

Product name : ProFlow P+
Product number : PFP+
Brand : Hidex
REACH NO. : A registration number is not available for this mixture. All the substances used within the mixture are either; Pre-REACH registered, fully REACH Registered, exempt from registration or the annual tonnage does not require registration.

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

Sector of Use : SU24 Scientific research and development
Application of the substance / the mixture : Liquid Scintillation Cocktail

1.3 Details of the supplier of the safety data sheet

Company: Hidex Chemicals Oy
Address: Lemminkäisenkatu 62, FIN-20520, Turku, Finland
Telephone: +358 10 843 5570
E-mail address: chemicals@hidex.com
Website: www.hidex.com

1.4 Emergency telephone numbers:

Poison Centres

Country	Language	European Poison Centre	Phone	Website
Belgium	French	Centre Antipoisons	070 245 245 (free, 24/7)	https://www.centreantipoisons.be
	Dutch	Antigif centrum	070 245 245 (free, 24/7)	http://www.antigifcentrum.be
Finland	Finnish Swedish English	Helsinki University Hospital– Poison Information Centre	0800 147 111 (free, 24/7) 09 471 977 (charged)	https://www.hus.fi/en/potilaalle/sairaalat-ja-toimipisteet/myrkytystietokeskus
France	French English	Service national d'assistance reglementaire REACH	+ 33 (0) 1 45 42 59 59 (free, 24/7) This number takes you through to local poison centre numbers for the different regions	https://reach-info.ineris.fr/Numero_orfila
Germany	German English	Local Poison Centres:		
		Berlin	+49 (0) 30 19240	https://giftnotruf.charite.de
		Bonn	+49 (0) 228 19240	**http://www.gizbonn.de**
		Erfurt	+49 (0) 361 730730	https://www.ggiz-erfurt.de/home.html
		Freiburg	+49 (0) 761 19240	https://www.uniklinik-freiburg.de/giftberatung.html
		Gottingen	+49 (0) 551 19240	https://www.giz-nord.de/cms/index.php
		Homburg/Saer	+49 (0) 6841 19240	http://www.uniklinikum-saarland.de/de/einrichtungen/kliniken_institute/
		Mainz	+49 (0) 6131 19240	**http://www.giftinfo.uni-mainz.de**
		Munchen	+49 (0) 89 19240	http://www.toxinfo.med.tum.de

Cont…

Country	Language	European Poison Centre	Phone	Website
Hungary	Hungarian	Health toxicology information service	+36 80 201 199 (free 24/7 - only from Hungary) +36 1 476 6464 (24/7, can be called for a normal fee from abroad)	https://www.nnk.gov.hu/index.php/kemiai-biztonsagi-es-kompetens-hatosagi-fo/egeszsegugyi-toxikologiai-tajekoztato-szolgalat
Italy	Italian	Centro Antivelni firenze	+39 055 794 7819 (24/7)	Presentazione (antiveleni.altervista.org)
Ireland	English	Poisons information Centre of Ireland	+353 1 809 21 66 (8am-10pm / 7 days a week) +353 1 809 25 66 (24/7, healthcare profession only)	https://www.poisons.ie/
Lithuania	Lithuanian English	Poison Information Bureau part of The State Medicines Control Agency	+370 8-5 236 20 52 (free, 24/7)	http://www.apsinuodijau.lt/pirma-pagalba/
Netherlands	French English Dutch	National Poisons Information Center / University Medical Center Utrecht	+31 88 75 585 61	https://www.umcutrecht.nl/nl
Poland	Polish	National Poison Information Centres:		
		Krakow	+48 12 411 99 99	http://www.oit.cm.uj.edu.pl
		Gdansk	+48 58 682 04 04	http://www.pctox.pl/new/
		Poznań	+48 61 847 69 46	N/A
		Warszawa	+48 607 218 174	N/A
Romania	Romanian	National Institute for Public Health, Ministry of Health		
		CNMRMC	+40 213 183 606	N/A
		Spitalul Clinic de Urgenta Bucuresti	+40 215 992 300 int. 291	N/A
		Spitalul Clinic Judetean de Urgenta Targu Mures	+40 265.212.111	N/A
Slovakia	Slovak	National Toxicological Information Centre	+421 2 5477 4166	http://www.ntic.sk/ntic_en.php
Spain	Spanish	National Emergency Telephone Number of Spanish Poison Centre	+34 91 562 04 20	https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/temas/productos-quimicos/portal-reach-clp/novedades/detalle_novedades.aspx?id=tcm:30-193752-16
Sweden	Swedish English	Swedish Poison Information Centre	**112 (24/7) Emergency** 010-456 6700 Less urgent	In English - Giftinformationscentralen
UK	English	National Poisons Information Service NHS	+44 (0) 344 892 0111 - Healthcare Professionals ONLY 111 – General public	https://www.npis.org/Industrynotify.html https://www.nhs.uk/nhs-services/

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008

Aspiration toxicity	Category 1	H304
Skin corrosion	Category 1B	H314
Serious eye damage	Category 1	H318
Reproductive toxicity	Category 1B	H360
Aquatic chronic	Category 1	H410

For the full text of the H-Statements mentioned here - see section 16

2.2 Label elements
Classification according to Regulation (EC) No 1272/2008

Hazard pictograms



GHS05



GHS08



GHS09

Signal word Danger

Contains: 2-(2-methoxyethoxy)ethanol, Di-isopropylnaphthalene isomers, Alcohols, C11-15 secondary, ethoxylated and Phosphoric acid, butyl ester

Hazard statements

H304	May be fatal if swallowed and enters airways
H314	Causes severe skin burns and eye damage
H360D	May damage the unborn child
H410	Very toxic to aquatic life with long lasting effects

Precautionary statements

P201+P202	Obtain special instructions before use and do not handle until all safety precautions have been read and understood.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTRE / DOCTOR.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

2.3 Other hazards
None known

Results of PBT and vPvB assessment
This product contains di-isopropylnaphthalene isomers (CAS # 38640-62-9) and should be handled accordingly as if it were a PBT/vPvB.

Endocrine Disrupting Properties
This product does not contain any substances that have endocrine disrupting properties.

SECTION 3: Composition / Information on Ingredients

3.2 Mixtures
Description: Mixture of substances listed below with non-hazardous additions.
Hazardous components:

Di-isopropylnaphthalene isomers					
CAS #: 38640-62-9 EC NUMBER: 254-052-6 REACH: 01-2119565150-48-XXXX	Aspiration toxicity category 1 Aquatic chronic category 1	H304 H410	40-60%	ATE: M Factor: SCL:	N/A Chronic: 1 N/A
Alcohols, C11-15 secondary, ethoxylated					
CAS #: 68131-40-8 EC NUMBER: 614-295-4 REACH: Exempt	Eye damage category 1 Skin irritation category 2	H318 H315	20-40%	ATE: M Factor: SCL:	N/A N/A N/A
2-(2-methoxyethoxy)ethanol					
Annex XVII – Restriction on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles – **Listed** under entry 54 -This is not applicable to this application.					
CAS #: 111-77-3 EC NUMBER: 203-906-6 INDEX: 603-107-00-6 REACH: 01-2119475100-52-XXXX	Reproductive toxicity category 1B	H360D	5-10%	ATE: M Factor: SCL:	N/A N/A Repr. 1B H360D: C ≥ 3 %
C8-10 Alkyl alcohol ethoxylate (4EO), phosphate ester					
CAS #: 68130-47-2 EC NUMBER: 614-291-2	Eye damage category 1 Skin corrosion category 1C	H318 H314	5-8 %	ATE: M Factor: SCL:	N/A N/A N/A
Phosphoric acid, butyl ester					
CAS #: 12788-93-1 EC NUMBER: 235-826-2	Skin corrosion category 1B	H314	2-5%	ATE: M Factor: SCL:	N/A N/A N/A

For the full text of the H-Statements mentioned here - see section 16

SECTION 4: First Aid Measures

4.1 Description of first aid measures

General information: Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled: Move person into fresh air.
In case of contact with skin contact: Wash off with plenty of water. Remove contaminated clothing and wash before reuse. Consult a DOCTOR.
In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do. Consult a DOCTOR. Protect unharmed eye.
If swallowed: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Call for a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting Measures

5.1 Extinguishing media

Suitable extinguishing agents: Carbon Dioxide, dry powder or water spray.
Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture

No further relevant information available.

5.3 Advice for fire-fighters

Special Protective equipment: Wear self-contained respiratory protective device.
Wear fully protective suit.

Further Information: Cool closed containers exposed to fire with water spray.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Use personal protective equipment. Keep unprotected persons away.

Special precautions: Particular danger of slipping on leaked/spilled product.

6.2 Environmental precautions

Environmental precautions: Inform respective authorities in case of seepage into water course.
Dilute with plenty of water.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up: Absorb with liquid binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Pick up mechanically
Dispose in according to local regulations (see section 13).

6.4 Reference to other sections

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Advice on safe handling: Wear personal protective equipment.
Avoid contact with skin and eyes.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

Information about fire and explosion protection:

Keep away from sources of ignition.
Do not smoke.

7.2 Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles:

No special requirements.

Information about storage in one common storage facility:

Not required.

Further information about storage conditions:

Keep container tightly sealed.
Protect from exposure to the light.

7.3 Specific end use(s)

Specific use (s): Advised temperature of storage and use: 10-20 °C.

SECTION 8: Exposure Controls / Personal Protection

8.1 Control parameters
Components with workplace control parameters:

Component	CAS - No	Exposure	Value	Control Parameter
2-(2-methoxyethoxy)ethanol	111-77-3	WEL	TWA	EU: 50.1 mg/m^3, 10 ppm FIN: 50 mg/m^3, 10 ppm
Di-isopropylnaphthalene isomers	38640-62-9	DNEL	LONG TERM	2.1 mg/kg/d ORAL 2.1 mg/kg/d DERMAL 7.4 mg/kg/d INHALATION

8.2 Exposure controls

General protective and hygienic measures: Handle in accordance with good industrial hygiene and safety practice.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Do not eat, drink, smoke or sniff while working.
Wear suitable gloves, body and eye protection and a face shield.

Personal Protective Equipment:

Respiratory protection: No personal respiratory protective equipment normally required.

Skin protection: Handle with protective gloves. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Splash contact Material: Nitrile-rubber
Minimum layer thickness: 0.4 mm
Break through time: 30 min
If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Eye / face protection: Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH(US) or EN 166(EU).

Body protection: Protective work clothing – complete suit protecting against chemicals. The type of protective clothing must be selected according to the concentration and amount of the dangerous substance at the specified workplace.

Control of environmental exposure Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Form:	Colourless
Colour:	According to specification
Odour:	Characteristic
Odour threshold:	Not determined
pH-value:	Not determined
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	290 °C
Flash point:	149 °C
Flammability (solid, gaseous):	Not applicable
Ignition temperature:	190 °C
Decomposition temperature:	Not determined
Self-igniting:	Product is not self igniting
Danger of explosion:	Product does not present explosion hazard.
Explosion limits:	
Lower:	0.4 Vol %
Upper:	4.7 Vol %
Vapour pressure:	Not determined
Density at 20 °C:	1 gm/cm^3
Relative density	Not determined
Vapour density	Not determined
Evaporation rate	Not determined
Solubility in / Miscibility with water:	Not miscible
Particle size	Not applicable
Partition coefficient (n-octanol/water):	Not determined
Viscosity:	
Dynamic:	Not determined
Kinematic:	Not determined

9.2 Other information No further relevant information available.

SECTION 10: Stability and Reactivity

10.1 Reactivity: No data available

10.2 Chemical stability Stable under recommended storage conditions.

No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions: Reacts with strong oxidising agents and flammable substances.

10.4 Conditions to avoid Toxic fumes may be released if heated above decomposition point.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products: Carbon monoxide, carbon dioxide, nitrogen oxides and phosphorus compounds.

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Component	CAS - No	LD50 / 48 hours
Di-isopropylnaphthalene isomers	38640-62-9	>4,000 mg/kg (rat) ORAL >4,000 mg/kg (rat) DERMAL >5.6 mg/l (rat) INHALATION
Alcohols, secondary C11-15, ethoxylated	68131-40-8	>3,000 mg/kg (rat) ORAL *estimate* >2,000 mg/kg (rat) DERMAL *estimate*
2-(2-methoxyethoxy)ethanol	111-77-3	6,500 mg/kg (rat) ORAL 6,450 mg/kg (rat) DERMAL

Acute toxicity: Based on available data, classification criteria not met.

Skin corrosion / irritation: Causes severe skin burns. May cause respiratory irritation.

Serious eye damage / eye irritation: Causes serious eye damage.

Respiratory or skin sensitisation: Based on available data, classification criteria not met.

Germ cell mutagenicity: Based on available data, classification criteria not met.

Carcinogenicity: Based on available data, classification criteria not met.

Reproductive toxicity: May damage the unborn child.

Specific Target Organ Toxicity – Single Exposure: Based on available data, classification criteria not met.

Specific Target Organ Toxicity – Repeated Exposure: Based on available data, classification criteria not met.

Aspiration hazard: May be fatal if swallowed and enters airways.

Additional information: The toxicological properties have not been fully investigated.

11.2 Information on other hazards

Endocrine disrupting properties No adverse health effects caused by endocrine disrupting properties are reported (see Section 12 for ecological information).

Othe information No additional health effects are reported.

SECTION 12: Ecological Information

12.1 Toxicity

Aquatic toxicity: Very toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability: Biodegradable.
Degradation / 28 d, 104 % (OECD302B) (Zahn-Wellens on Aniline).

12.3 Bio accumulative potential: No further relevant information available.

12.4 Mobility in soil: No further relevant information available.

12.5 Results of PBT and vPvB Assessment: This product contains di-isopropylnaphthalene isomers (CAS # 38640-62-9) and should be handled accordingly as if it was a PBT/vPvB.

12.6 Endocrine disrupting properties: This product contains no substances with endocrine disrupting properties.

12.7 Other adverse effects

Additional ecological information:	Very toxic to aquatic life with long lasting effects.
General notes:	Do not allow large quantities of product, undiluted or un-neutralised to reach ground water, water course or sewage system. Dangerous to drinking water, even if small quantities leak into the ground. Poisonous to fish and plankton.

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

Product:	Must not be disposed together with household garbage.
Uncleaned Packaging:	Disposal must be made according to official regulations.

SECTION 14: Transport Information

14.1 UN-Number

ADR, IMDG, IATA	UN1760

14.2 UN proper shipping name -

ADR	UN 1760 CORROSIVE LIQUID, N.O.S (contains Phosphoric acid, butyl ester, C8-10 Alkyl alcohol ethoxylate, phosphate ester)
IMDG/IATA	

14.3 Transport hazard class(es)	8 Corrosive substances
ADR, IMDG, IATA	
Class	
Label	8

14.4 Packing group -

ADR, IMDG, IATA	III

14.5 Environmental hazards:

Marine pollutant:	Yes

14.6 Special precautions for user	Warning: corrosive substances.
Danger code (Kemler):	80
EMS Number:	F-A,S-B

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Limited quantities (LQ)	5 kg
Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
Transport category	3
Tunnel restriction code	E
IMDG	
Limited quantities (LQ)	5L
Excepted quantities (EQ) Code:	E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000g
UN "Model Regulation":	UN 1760 CORROSIVE LIQUID, N.O.S (contains Phosphoric acid, butyl ester, C8-10 Alkyl alcohol ethoxylate, phosphate ester), 8, III

SECTION 15: Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
REACH Regulation (EC) No. 1907/2006

- **Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles, Annex XVII:** Listed; 54 – 2-(2-methoxyethoxy)ethanol - not applicable in this application.

15.2 Chemical safety assessment
A Chemical Safety Assessment has not been carried out.

Section 16: Other Information

Changes from previous version:
Section 2—updated classification and label elements, added endocrine disruptor and vPvB information
Section 3—updated ingredients classifications and information
Section 4—updated first-aid instructions
Section 8—Added OEL-values for Finland
Section 11—updated toxicological information and added endocrine disruptor information
Section 12—updated ecotoxicological information

Hazard statements

H304	May be fatal if swallowed and enters airways
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H360D	May damage the unborn child
H410	Very toxic to aquatic life with long lasting effects

Precautionary statements

P201 +P202	Obtain special instructions before use and do not handle until all safety precautions have been read and understood.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTRE / DOCTOR.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

This based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
REACH: Registration, Evaluation, Authorisation & restriction of Chemicals