Section 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name ETCHING PROMOTOR

Product code 3PE072

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

Identified uses

Thinner for professionnal use

Based on use descriptor system given by guideline of the European Chemical Agency
Sector of use SU 3, SU 22
Product category PC35
Further information see chapter Exposure scenario
The product is only for industrial and/or professional use, not for any private consumer use.

1.3. Details of the supplier of the safety data sheet

Company/Undertaking Identification

DUTHOO NV
Street : ESSERSTRAAT 3
Postal code/city : BE - 8550 ZWEVEGEM
Telephone : +32 (0)56 360 774
Telefax : +32 (0)56 360 776
E-mail (competent person) : info@duthoo.eu

1.4. Emergency telephone number

Belgian Anti Poison Centre - Belgisch Antigifcentrum: +32 70 245 245

Section 2. Hazards identification

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

2.1. Classification of the substance or mixture

Classification of the mixture

According to Regulation (EC) No 1272/2008
Flam. Liq. 2, H225; Asp. Tox. 1, H304; Eye Dam. 1, H318; STOT SE 3, H336; Aquatic Chronic 3, H412; EUH066;

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008.

Pictogram and Signal word of the product

Signal word: Danger

Hazardous components which must be listed on the label

Contains	ethyl acetate n-butyl acetate naphtha (petroleum), hydrotreated light (<0,1% benzene) iso-butanol

Hazard statements

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Precautionary statements

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P261	Avoid breathing dust/ vapours/ spray.
P273	Avoid release to the environment.
P280	Wear eye protection/ face protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331	Do NOT induce vomiting.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

2.3. Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT). This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

Restricted to professional users.

Section 3. Composition/information on ingredients

3.1. Substances

This product is a mixture. Health hazard information is based on its components.

3.2. Mixtures

Chemical characterization

mixture of solvents

Hazardous components

Substances presenting a health or environmental hazard within the meaning of Regulation (EC) No 1272/2008

CAS 141-78-6	ethyl acetate			
EC 205-500-4	REACh 01-2119475103-46	25 - <	35 %	
Classification	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336; EUH066;			

CAS 67-64-1	acetone		
EC 200-662-2	REACh 01-2119471330-49	20 - <	25 %
Classification	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336; EUH066;		
CAS 123-86-4	n-butyl acetate		
EC 204-658-1	REACh 01-2119485493-29	15 - <	20 %
Classification	Flam. Liq. 3, H226; STOT SE 3, H336; EUH066;		
CAS 64742-49-0	naphtha (petroleum), hydrotreated light (<0,1% benzene)		
EC 265-151-9	REACh 01-2119473851-33	15 - <	20 %
Classification	Flam. Liq. 2, H225; Asp. Tox. 1, H304; STOT SE 3, H336; Aquatic Chronic 2, H411; EUH066;		
CAS 78-83-1	iso-butanol		
EC 201-148-0	REACh 01-2119484609-23	7 - <	10 %
Classification	Flam. Liq. 3, H226; Skin Irrit. 2, H315; Eye Dam. 1, H318; STOT SE 3, H335; STOT SE 3, H336;		
CAS 110-54-3	n-hexane		
EC 203-777-6	REACh no registration number available	0.3 - <	0.5 %
Classification	Flam. Liq. 2, H225; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336; Repr. 2, H361f; STOT RE 2, H373; Aquatic Chronic 2, H411;		
CAS 108-88-3	toluene		
EC 203-625-9	REACh 01-2119471310-51	0.2 - <	0.25 %
Classification	Flam. Liq. 2, H225; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336; Repr. 2, H361d; STOT RE 2, H373;		
CAS 110-82-7	cyclohexane		
EC 203-806-2	REACh 01-2119463273-41	0.2 - <	0.25 %
Classification	Flam. Liq. 2, H225; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336; Aquatic Acute 1, H400; Aquatic Chronic 1, H410;		

Up to the given revision date of this safety data sheet only the above mentioned REACh registration numbers are assigned to the chemical substances used in this mixture.

Additional advice
See full text of H-phrases in chapter 16.

Section 4. First aid measures

4.1. Description of first aid measures

General advice

When symptoms persist or in all cases of doubt seek medical advice. Never give anything by mouth to an unconscious person.

Inhalation

Avoid inhalation of vapour or mist. Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artificial respiration. If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.

Skin contact

Do NOT use solvents or thinners. Take off all contaminated clothing immediately. Wash skin thoroughly with soap and water or use recognized skin cleanser. If skin irritation persists, call a physician.

Eye contact

Remove contact lenses. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Seek medical advice.

Ingestion

If swallowed, seek medical advice immediately and show this safety data sheet (SDS) or product label. Do NOT induce vomiting. Keep at rest.

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

Please see practical experience in section 11.

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

If unconscious place in recovery position and seek medical advice.

Section 5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Universal aqueous film-forming foam, Carbon dioxide (CO2), Dry chemical, Water spray.

Extinguishing media which shall not be used for safety reasons

High volume water jet

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

Fire will produce dense black smoke containing hazardous combustion products. Exposure to decomposition products may be a hazard to health.

Hazardous decomposition products

When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

5.3. Advice for firefighters

Fire and Explosion Hazards

Flammable liquid. Vapours may form explosive mixtures with air. Remove all sources of ignition. Solvent vapours are heavier than air and may spread along floors.

Special Protective Equipment and Fire Fighting Procedures

Wear as appropriate: Full protective flameproof clothing. Wear self-contained breathing apparatus for firefighting if necessary. In the event of fire, cool tanks with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

Section 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep in a well-ventilated place. Keep away from sources of ignition. Do not inhale vapours.

6.2. Environmental precautions

Do not let product enter drains. Notify the respective authorities in accordance with local law in the case of contamination of rivers, lakes or waste water systems. Please avoid any emission of volatile organic compounds as possible.

6.3. Methods and materials for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations. Clean preferably with a detergent; avoid use of solvents.

6.4. Reference to other sections

Comply with safety directives (see chapters 7 and 8).

Section 7. Handling and storage

7.1. Precautions for safe handling

Safe handling advice

Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. The product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Preparation may charge electrostatically: always use grounded leads when transferring from one container to another.

Operators should wear antistatic footwear and clothing. No sparking tools should be used. Avoid skin and eye contact. Do not breathe vapours or spray mist. Smoking, eating and drinking should be prohibited in the application area.

For personal protection see section 8. Comply with the health and safety at work laws. If material is a coating, do not sand, flame cut, braze or weld dry coating without an appropriate respirator or appropriate ventilation, and gloves.

Advice on protection against fire and explosion

Solvent vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Never use pressure to empty container: container is not a pressure vessel. Always keep in containers of same material as the original one. The accumulation of contaminated rags may result in spontaneous combustion. Good housekeeping standards and regular safe removal of waste materials will minimize the risks of spontaneous combustion and other fire hazards.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Observe label precautions. Refer to Technical Data Sheet (TDS) for further information about storage temperature. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. No smoking. Prevent unauthorized access. Containers which are opened must be carefully resealed and kept upright to prevent leakage. The storage and use of this product is subject to the requirements of the Dangerous Substances and Explosive Atmospheres Regulations (DSEAR). Up to 50 litres of such highly flammable liquids may be stored in a work area provided they are kept in a fire-proof cupboard or bin. Larger quantities must be kept in a separate storeroom conforming to the structural requirements of the regulations. Further guidance is contained in the HSE ACOP L135, “Storage of Dangerous Substances.”

Advice on common storage

Store separately from oxidizing agents and strongly alkaline and strongly acidic materials.
Do not store together with explosives, gases, oxidizing solids, products which form flammable gases in contact with water, oxidizing products, infectious products and radioactive products.

7.3. Specific end use(s)

Please see exposure scenarios as given in the annex.

Section 8. Exposure controls/personal protection

8.1. Control parameters

DNEL

CAS-No.	Chemical name	End Use	Exposure routes	Frequency of exposure	Type	Value
141-78-6	ethyl acetate	Workers	Dermal	Long term	Systemic effects	63 mg/kg/day
		Workers	Inhalative	Long term	Systemic effects	200 ppm
67-64-1	acetone	Workers	Dermal	Long term	Systemic effects	186 mg/kg/day
		Workers	Inhalative	Long term	Systemic effects	500 ppm
123-86-4	n-butyl acetate	Workers	Dermal	Long term	Systemic effects	11 mg/kg/day
		Workers	Inhalative	Long term	Systemic effects	100 ppm
64742-49-0	naphtha (petroleum), hydrotreated light (<0,1% benzene)	Workers	Dermal	Long term	Systemic effects	773 mg/kg/day
		Workers	Inhalative	Long term	Systemic effects	454.106 ppm
78-83-1	iso-butanol	Workers	Inhalative	Long term	Systemic effects	100 ppm
110-82-7	cyclohexane	Workers	Dermal	Long term	Systemic effects	2,016 mg/kg/day
		Workers	Inhalative	Long term	Systemic effects	200.453 ppm

PNEC

CAS-No.	Chemical name	Compartment	Type	Value
141-78-6	ethyl acetate	Aquatic	Fresh water	0.26 mg/l
78-83-1	iso-butanol	Aquatic	Sediment	1.52 mg/l
		Aquatic	Fresh water	0.4 mg/l
		Aquatic	Sea-water	0.04 mg/l

Community / national occupational exposure limits

CAS-No.	Chemical name	Source	Time	Type	Value	Note
141-78-6	ethyl acetate			STEL	400 ppm	
				TWA	200 ppm	
67-64-1	acetone		8 hr	IOELV8	1,210 mg/cm3	
			8 hr	IOELV8	500 ppm	
				STEL	3,620 mg/m3	
				STEL	1,500 ppm	
				TWA	1,210 mg/m3	
				TWA	500 ppm	
123-86-4	n-butyl acetate			STEL	966 mg/m3	
				STEL	200 ppm	
				TWA	724 mg/m3	
				TWA	150 ppm	
78-83-1	iso-butanol			STEL	231 mg/m3	
				STEL	75 ppm	
				TWA	154 mg/m3	
				TWA	50 ppm	
110-54-3	n-hexane		8 hr	IOELV8	72 mg/cm3	
			8 hr	IOELV8	20 ppm	
				TWA	72 mg/m3	
				TWA	20 ppm	
110-82-7	cyclohexane		8 hr	IOELV8	700 mg/cm3	
			8 hr	IOELV8	200 ppm	
			15 min	STEL	1,050 mg/m3	
			15 min	STEL	300 ppm	
			8 hr	TWA	350 mg/m3	
			8 hr	TWA	100 ppm	

Glossary

IOELV	Indicative Occupational Exposure Limit Values
STEL	Short term exposure limit
TWA	Time weighted average

8.2. Exposure controls

Additional technical information on the plant

Provide adequate ventilation. This should be achieved by a good general extraction and -if practically feasible- by the use of a local exhaust ventilation. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL, suitable respiratory protection must be worn. Mask with gas filter, type A (EN 141)

Protective equipment

Personal protective equipment should be worn to prevent contact with eyes, skin or clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection

The breakthrough time of gloves is unknown for the product itself. The glove material given is recommended on basis of the substances in the preparation.

Chemical name	Glove material	Glove thickness	Break through time
ethyl acetate	Nitrile rubber	0.33 mm	10 MIN
	Viton (R) ®	0.7 mm	480 MIN
n-butyl acetate	Viton (R) ®	0.7 mm	10 MIN
	Nitrile rubber	0.33 mm	30 MIN

The protective glove should be checked in each case for their work specific suitability (e.g. mechanical stability, product compatibility, and anti-static properties). When the intended use is for spray application a nitrile glove of the chemical resistance group 3 (e.g. Dermatril® glove) is to be used. After contamination, the glove has to be changed. If immersing the hands into the product is not avoidable (e.g. maintenance work) a butyl or fluorocarbon rubber glove should be used. When skin exposure may occur to materials specified in section 3 of this SDS, advice should be sought from the glove supplier as to appropriate type to use with this product and the permeation breakthrough times. Care should be taken when working with sharp edged articles as these can easily damage the gloves and make them ineffective. The instructions and information provided by the glove supplier on use, storage, maintenance and replacement must be followed. Damaged gloves or those showing signs of wear should be replaced immediately.

Eye protection

Use safety eyewear designed to protect against splash of products.

Skin and body protection

Wear suitable protective clothing. Personnel should wear antistatic clothings made of natural fiber or of high temperature resistant synthetic fiber.

Hygiene measures

Wash skin thoroughly with soap and water or use recognized skin cleanser. Do not use organic solvents!

Environmental exposure controls

Do not let product enter drains.
For ecological information refer to section 12.

Section 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Form: liquid; **Colour:** clear; **Odour:** Odour is not perceptible.;

Important health, safety and environmental information

Property	Value	Method
pH	No data available	
Melting point/freezing point	Not applicable.	
Boiling point/boiling range	70 °C	
Flash point	-18 °C	EN ISO 3679
Evaporation rate	Slower than Ether	
Flammability (solid, gas)	not relevant as product is liquid	
Lower explosion limit	0.8 vol-% based on organic solvent content	
Upper explosion limit	12.8 vol-% based on organic solvent content	
Vapour pressure	90.8 hPa	
Vapour density	No data available	
Density	0.83 g/cm^3	20 °C - DIN 53217/ISO 2811
Solubility(ies)		
Water solubility	appreciable	
Solubility in other solvents	miscible with most organic solvents Listed in: Section 3. Composition/information on ingredients	
Partition coefficient: n-octanol/water	This product is a mixture. For ingredient details see section 12	
Auto-ignition temperature	220 °C	DIN 51794 based on organic solvent content
Decomposition temperature	This product is a mixture. For further information see section 10.	
Viscosity (23 °C)	<20 s	ISO 2431 - 1993 6 mm
Explosive properties	Not explosive	
Oxidizing properties	not oxidizing	

9.2. Other information

Solvent separation test	< 3%	ADR/RID
Content of volatile components (including water)	100.0 %	Basis Vapour pressure >= 0.01 kPa
organic solvent content	100.0 %	Basis Vapour pressure >= 0.01 kPa
European VOC	100.0 %	Basis Vapour pressure >= 0.1 hPa

Section 10. Stability and reactivity

10.1. Reactivity

Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

10.2. Chemical stability

The product is chemically stable.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Stable under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials to avoid

not required under normal use

10.6. Hazardous decomposition products

None known.

Section 11. Toxicological information

11.1. Information on toxicological effects

General observations

There is no data available on the product. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1272/2008/EC and classified for toxicological hazards accordingly. See sections 2 and 3 for details.

Practical experience

Swallowing may cause nausea, diarrhoea, vomiting, gastro-intestinal irritation and chemical pneumonia. Exposure to component solvents vapours concentration in excess of the stated occupational exposure limit may result in adverse health effect such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Acute toxicity

Acute inhalation toxicity

EINECS-No.	Chemical name	Species	Type	Exposure time	Value	Method
203-777-6	n-hexane	Rat	LC50	4 h	48,000 ppm	

irritant effects

The liquid splashed in the eyes may cause irritation and reversible damage.

Section 12. Ecological information

There are no data available on the product itself. The product should not be allowed to enter drains or watercourses.

The data in this section is consistent with data from chemical safety reports available at the date of revision.

12.1. Toxicity

Aquatic toxicity

Acute toxicity aquatic invertebrates

EINECS-No.	Chemical name	Species	Type	Exposure time	Value	Method
265-151-9	naphtha (petroleum), hydrotreated light (<0,1% benzene)	Daphnia	EC50	48 h	4.6 mg/l	
203-806-2	cyclohexane	Daphnia	LC50	0	340 mg/l	

Acute and extended toxicity of fishes

EINECS-No.	Chemical name	Species	Type	Exposure time	Value	Method
265-151-9	naphtha (petroleum), hydrotreated light (<0,1% benzene)	Leuciscus idus (Golden orfe)	LC50	96 h	5 mg/l	
203-777-6	n-hexane		LC50	96 h	1 mg/l	

EINECS-No.	Chemical name	Species	Type	Exposure time	Value	Method
203-806-2	cyclohexane	Oryzias latipes	EC50	48 h	9 mg/l	
203-806-2	cyclohexane	Oncorhynchus mykiss (rainbow trout)	LC50	24 h	10 mg/kg	

Toxicity with aquatic plants

EINECS-No.	Chemical name	Species	Type	Exposure time	Value	Method
265-151-9	naphtha (petroleum), hydrotreated light (<0,1% benzene)	Algae	EC50	72 h	10 mg/l	
203-777-6	n-hexane	Algae	LC50	0	1 mg/l	
203-806-2	cyclohexane	Desmodesmus subspicatus (green algae)	LC50	72 h	500 mg/l	

Contains 0.0% of components with unknown hazards to the aquatic environment.

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

Based on available data no ingredient is classified for this hazard property (please see section 3).

12.6. Other adverse effects

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1272/2008/EC and is classified for eco-toxicological properties accordingly. See sections 2 and 3 for details.

Adsorbed organic bound halogens (AOX)

Product does not contain organic linked halogens contributing to AOX.

Section 13. Disposal considerations

13.1. Waste treatment methods

Dispose of in accordance with local regulations.

Product

Recommendation:
A disposal process that converts the waste into energy is recommended. If this is not possible the hazardous waste must be disposed of by incineration.

Waste Key Number	Description
08 01 17	wastes from paint or varnish removal containing organic solvents or other dangerous substances

Uncleaned packaging

Recommendation:
Properly emptied containers are to be scrap processed or reconditioned. Improperly emptied containers are considered

hazardous waste (waste key number 150110). Waste, including emptied containers, is controlled waste. Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. If fully drained containers are compacted they can be regarded as Controlled Waste and disposed of in accordance with the requirements of the Control of Pollution Act 1974 and the Environmental Protection Act 1990 (GB), the Pollution Control and Local Government (NI) Order 1978 (NI) or of the EC (Waste) Regulations 1979 and the EC (Toxic & Dangerous Waste) Regulations 1982 (IRL).

Section 14. Transport information

Transport only in accordance with the requirements of the Carriage of Dangerous Goods by Road and Rail (Classification, Packaging and Labeling), ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport.

14.1. UN number

ADR/RID; IMDG; ICAO/IATA: 1263

14.2. UN proper shipping name

ADR/RID; IMDG; ICAO/IATA: PAINT RELATED MATERIAL

14.3. Transport hazard class(es)

Hazard class

ADR/RID; IMDG; ICAO/IATA: 3

Subsidiary hazard class

ADR/RID; IMDG; ICAO/IATA: Not applicable.

Labels

Tunnel restriction code

ADR/RID: D/E

Special Provisions

ADR/RID: 640D

Kemler Code

ADR/RID: 33

Hazchem Code

ADR/RID: 3YE

EmS

IMDG: F-E,S-E

14.4. Packaging group

ADR/RID; IMDG; ICAO/IATA: II

14.5. Environmental hazards

ADR/RID; IMDG; ICAO/IATA: none

Marine pollutant

IMDG: no

14.6. Special precautions for user

please see section 6 - 8

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Deliveries shall only be made based on appropriate packaging and in compliance with traffic laws.

Section 15. Regulatory information

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

National legislation

This safety datasheet has been prepared according to British legislation.

The product is labeled according to the Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 as amended (CHIP Regulations). The risk associated with the use of this product must be assessed in accordance with the Control of Substances Hazardous to Health (COSHH) Regulations and the Dangerous Substances and Explosive Atmospheres Regulations.

Restricted to professional users.

15.2. Chemical safety assessment

No safety checks were carried out on the mixture.

Section 16. Other information

Full text of H phrases with no. appearing in section 3

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
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.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Labelling according to European Directive 1999/45/EC.

Symbol and indication of hazard.

F | Highly flammable

Xn | Harmful

R-phrase(s)

R11	Highly flammable.
R36	Irritating to eyes.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65	Harmful: may cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

S-phrase(s)

S16	Keep away from sources of ignition - No smoking.
S23	Do not breathe vapour.
S33	Take precautionary measures against static discharges.
S38	In case of insufficient ventilation, wear suitable respiratory equipment.

Information taken from reference works and the literature.

Substance No.	CAS no: www.cas.org./EO/regsys.html http://echa.europa.eu/
Substances presenting a health or environmental hazard within the meaning of Directive 67/548/EEC.	http://echa.europa.eu/search-for-chemicals http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB http://www.cdc.gov/niosh/ipcs/icstart.html
Other directives, limitations and prohibitory regulations	Regulation (EC) No. 1907/2006 Directive 98/24/EC Directive 2004/37/EC REGULATION (EC) No 1272/2008 EUR-LEX: http://europa.eu.int/eur-lex/lex
Exposure limit for the pure substance	http://osha.europa.eu/OSHA

Training advice

Regulation (EC) No. 1907/2006
Directive 98/24/EC

Further information

The information of this SDS is based on the present state of our knowledge and meets the requirements of EU and national laws. The user's working conditions however, are beyond our knowledge and control. The product is not to be used for purposes other than those specified under section 1 without a written permission. It remains the responsibility of the user to ensure that the necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18 years of age, who are satisfactorily informed of how to do the work, the hazardous properties and necessary safety precautions. The information given in this SDS is to describe the product only in terms of health and safety requirements and should not, therefore, be construed as guaranteeing specific properties.

Report version

Version	Changes
5.2	8, 16

Revision Date: 2017-01-04

Annex - Exposure scenarios

Consolidated exposure assessment for industrial and professional use of cleaning product

The consolidated exposure assessment provides specific information on how a hazardous substance (in a mixture) is to be managed and controlled. It considers specific conditions of use, in order to ensure that a use is safe to humans and the environment. Compliance with operational conditions and risk management measures is required if the exposure assessment is annexed to a mandatory safety data sheet. In this case, identified risk management measures are to be implemented unless the downstream user is able to ensure safe use in a diverging way.

1. Consolidated exposure assessment (type 1) for application of solvents cleaning

Free short title:

Industrial or professional use of solvents for substrate or equipment cleaning (professional use in close to industrial setting)

Systematic title based on use descriptors:

Sector of use	SU 22, SU 3
Product category	PC35
Process category	PROC8a (covering PROC8b), PROC19 (covering PROC10)
Environmental release category	ERC4

Activities covered:

Transferring/loading, application by dipping, wiping, brushing and by means of dispenser

Contributing scenarios:

PROC8a (covering PROC8b)	Transfer of substance or preparation (charging/discharging)
PROC19 (covering PROC10)	Applicable for: Manual cleaning with intimate contact and only PPE available

2. Operational conditions and risk management measures

2.1. Contributing environmental scenario

Transferring/loading, application by dipping, wiping, brushing and by means of dispenser

Process conditions:

No transfer to process waste water stream; specific assessment of environmental exposure obsolete

2.2. Contributing worker scenarios

Transferring/loading, application by dipping, wiping, brushing and by means of dispenser

	PROC	DOA	LEV/TRV	RPE	DPE
Transferring	8a (covering 8b)	> 4 h	TRV	no	yes level 2
Cleaning	19 (covering 10)	> 4 h	LEV	no	yes level 2

Further specification:

Above parameters represent standard (default) assumptions according to CEPE mapping of operational conditions Valid information on risk management measures for specific formulation is provided in part 3. Deviation options are explained in part 4 (scaling).

3. Exposure estimation and reference to its source

Exposure assessment bases on initial scenarios for the used chemicals in this preparation as provided by manufactuters and importers. Identification of a lead substance indicator per route is based on the DPD+ methodology, taking into account content, dustiness and hazard characteristics. Use of the mixture is considered safe when conditions for safe use of the lead substance indicator are respected. Risk assessment is not applicable as long as no initial exposure scenarios are available.

3.1. Environmental assessment

No relevant ecotoxicological impact expected; specific description and assessment of environmental exposure obsolete;

3.2. Worker assessment

Assessment method:

ECETOC TRA version 3.0

Advice on dermal protection equipment is based on Axalta expert judgement
Transferring/loading, application by dipping, wiping, brushing and by means of dispenser - professional setting

	PROC	Route	LSI	LSI % range	DOA	LEV / TRV	RPE	DPE	DNEL	RCR
Transferring	8a (covering 8b)	Inhalation	acetone	> 25%	> 4hr	Technical room ventilation	none	–	500	0.30
		Skin	naphtha (petroleum), hydrotreated light (<0,1% benzene)	> 25%	> 4hr	–	–	Resistant gloves, training	773	<0.01
Cleaning	19 (covering 10)	Inhalation	acetone	> 25%	> 4hr	Local exhaust ventilation	none	–	500	0.20
		Skin	naphtha (petroleum), hydrotreated light (<0,1% benzene)	> 25%	> 4hr	–	–	Resistant gloves, training	773	<0.01

Transferring/loading, application by dipping, wiping, brushing and by means of dispenser - industrial setting

	PROC	Route	LSI	LSI % range	DOA	LEV / TRV	RPE	DPE	DNEL	RCR
Transferring	8a (covering 8b)	Inhalation	acetone	> 25%	> 4hr	Technical room ventilation	none	–	500	0.30
		Skin	naphtha (petroleum), hydrotreated light (<0,1% benzene)	> 25%	> 4hr	–	–	Resistant gloves, training	773	<0.01
Cleaning	19 (covering 10)	Inhalation	acetone	> 25%	> 4hr	Local exhaust ventilation	none	–	500	0.20
		Skin	naphtha (petroleum), hydrotreated light (<0,1% benzene)	> 25%	> 4hr	–	–	Resistant gloves, training	773	<0.01

4. Guidance to downstream user to evaluate whether he works inside the boundaries set by the exposure scenario

By variation of operational conditions and risk management measures (scaling), a downstream user can check whether he works inside the exposure scenario boundaries.
Standard scaling can be based on exposure modifying factors as used by ECETOC TRA which are listed below.

RCR(s) = RCR(o) * EMF(s)/EMF(o)
RCR(s) shall be < 1
RCR(s) = scaled risk characterisation ratio; RCR(o) = original risk characterisation ratio (in part 3)
EMF(s) = exposure modifying factor selected for scaling; EMF(o) = original exposure modyfing factor (in part 3)
Scaling may be used consecutively for multiple determinants.
Example: No technical room ventilation for mixing of tints (EMF(o) = 0.3), duration of activity restricted to 1 h/d (EMF(s) = 0.2)

Specific scaling may be based on measured values at the individual site.

Content % range	Content Factor	DOA h	DOA Factor
> 25	1	> 4	1
5 - 25	0.6	1 - 4	0,6
1 - 5	0.2	0,25-1	0,2
< 1	0.1	<0,25	0,1

Respiratory protection equipment	Factor	
No RPE	1	
Filter mask	0,1	Level 1
Air-fed mask	0,05	Level 2

Skin protection equipment	Factor	
No gloves	1	
Suitable gloves	0,2	Level 1
Resistant gloves, training	0,1	Level 2
Resistant gloves, specific training	0,05	Level 3

PROC	Factor for TRV	Factor for LEV Industrial setting	Factor for LEV Professional setting	Factor for LEV Dermal impact
8a	0.3	0.1	0.2	0.01
8b	0.3	Sol 0.05	Sol 0.2	0.1
8b	0.3	Vol 0.03	Vol 0.1	0.1
10	0.3	0.1	0.2	0.05
19		0.1	0.2	0.1

PROC	Factor	PROC	Adjusted factor Professional	Adjusted factor Industrial
8a (high volatility)	1	8b (high volatility)	0.5	0.6
8a (medium volatility)	1	8b (medium volatility)	0.5	1
8a (low volatility)	1	8b (low volatility)	0.4	0.5

Additional explanation

Use by private end consumers (SU 21) not considered as product is assigned for professional use only
Wide dispersive use (ERC 8a-8f) not assessed as professional use in paintshops is considered as non dispersive (point source)
No relevant substance transfer expected to marine water, sediment, or soil due to use in dedicated installations.
Ingestion (oral route) not assessed as not considered to occur in case of industrial / professioonal use
Worker exposure assessment based on DNELs is only applicable to demonstrate safe use of substances under REACH.
It is not suitable to demonstrate compliance with applicable occupational exposure limits (as displayed in section 8 of SDS).
Occupational exposure limits may apply for residual monomers (e.g. formaldehyde, monomeric isocyanates) which are not assessed under REACH.
Exposure assessment is performed for coating material as supplied.
Exposure assessment is performed for application of coating material at ambient temperature.
Adaptation may be required for application at elevated temperature (e.g. hot spraying).
No service life relevance for process aids.
Waste stage not assessed as incineration / biological treatment of waste and safe deposition of inert residues is assumed
No SVHC above declaration threshold contained unless disclosed in section 3 of SDS

Good practice advice

Following advice shall be pursued as long as exposure assessment in part 3 does not contain sufficient information

Recommendation to use technical room ventilation.
Advice to wear skin/eye protection as standard RMM due to risk of splashes/droplets.
Advice to provide spill retention system according to applicable regulation.

Standardised use descriptors according European Chemical Agency (EChA) Guidance on information requirements and chemical safety assessment, chapter R.12

SU 3	Industrial uses: Uses of substances as such or in preparations at industrial sites
SU 22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
PC35	Washing and cleaning products (including solvent based products)
PROC8a	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities
PROC8b	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities
PROC10	Roller application or brushing
PROC19	Hand-mixing with intimate contact and only PPE available
ERC4	Industrial use of processing aids in processes and products, not becoming part of articles

Glossary

SU	Sector of use
PC	Product category
PROC	Process category
ERC	Environmental release category
AC	Article category
CEPE	European council of producers and importers of paints, printing inks and artists' colours
OC	Operational condition
DOA	Duration of activity
LEV	Local exhaust ventilation
TRV	Technical room ventilation
RMM	Risk Management Measures
PPE	Personal protection equipment
RPE	Respiratory protection equipment
DPE	Dermal protection equipment
SVHC	Substance of very high concern
LSI	Lead substance indicator
DNEL	Derived No Effect Level
DMEL	Derived minimum effect level
ECETOC TRA	Targeted risk assessment as proposed by European center for ecotoxicology and toxicology of chemicals
RCR	Risk characterisation ratio