MATERIAL SAFETY DATA SHEET

Date of issue: 04.05.2012 Updating date: 01.06.2015 Number: 1P11.0318V1



Number: 1P1L0318V1 Page: 1 of 9

THINNER FOR ACRYLIC PRODUCTS

SECTION 1: SUBSTANCE/MIXTURE IDENTIFICATION AND MANUFACTURER/SUPPLIER IDENTIFICATION

1.1. Product identification

THINNER FOR ACRYLIC PRODUCTS

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

identified uses

industrial and professional uses in coatings

uses advised against

other than mentioned above

1.3. Data of the safety data sheet supplier

RANAL Sp. z o.o.

Ul. Łódzka 3

42-240 Rudniki k/Częstochowy

Tel: +48 34 329 45 03 Fax:+48 34 320-12-16

Person responsible for the safety data sheet

ranal@ranal.pl

1.4. Emergency telephone

+48 34 329 45 03 (from 8.00 am. to 03.00 pm.)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 of December 16 2008 on classification, labeling and packaging (CLP).

General hazards:

The product is classified as hazardous according to current regulations.

Health hazards:

Acute Tox.4 - Acute toxicity cat. 4 - airways, H332;

Skin Irrit.2 - Skin irritation, cat.2, H315;

Eye Irrit. 2 - Eye irritation, cat.2, H319;

STOT SE 3 - Toxic effect on target organs - single exposure STOT single exp., cat. 3, H336; H335

Asp. Tox 1 – Aspiration hazard, cat.1; H304,

STOT RE 2 - Toxic effect on target organs - repeated exposure STOT rep. exp., cat. 2, H373

Danger:

Flam. Liq.3 - Flammable liquid cat.3, H226

Environmental hazard:

Not applicable

2.2. Label elements:

Contains product of reaction mass of ethylbenzene and m-xylene and p-xylene or xylene (mixture of isomers), n-butyl acetate

Pictograms:









Number: 1P1L0318V1 Page: 2 of 9

THINNER FOR ACRYLIC PRODUCTS

Warning word: Danger

Risk index:

H226 Flammable liquid and vapour.

H332 Harmful if inhaled.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness

H304 May be fatal if swallowed and enters airways.

H373 May cause damage to organs through prolonged or repeated exposure.

H335 May cause respiratory irritation.

H319 Causes serious eye irritation.

Safety index:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P243 Take precautionary measures against static discharge.

P260 Do not breathe dust/fumes/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P331 Do NOT induce vomiting.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

2.3. Other hazards

Components of the mixture do not meet the criteria of PBT and vPvB according to Annex XIII of Reach Regulation.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable.

3.2. Mixtures

Product identification

THINNER FOR ACRYLIC PRODUCTS

Composition according to Regulation 1272/2008

n-butyl acetate

20 -30% EC: 204-658-1 CAS: 123-86-4

Index no: 607-025-00-1

Registration no: 01-2119485493-29-XXXX Flam. Liq. 3; H226; STOT SE 3; H336; EUH066

Methoxy propyl acetate

<5%

EC: 203-603-9 CAS: 108-65-6

Index No: 601-021-00-3

Registration No: 01-2119475791-29-XXXX

Flam. Liq. 3; H226

Reaction mass of ethylbenzene and m-xylene and p-xylene

<70%

WE: 905-562-9 CAS: unobtainable

Registration No: 01-2119555267-33-XXXX

Flam. Liq. 3, H226, Acute Tox. 4, H332, Acute Tox. 4, H312, Skin Irrit. 2, H315

MATERIAL SAFETY DATA SHEET Date of issue: 04.05.2012

Updating date: 01.06.2015 Number: 1P1L0318V1



Page: 3 of 9

THINNER FOR ACRYLIC PRODUCTS

Or xylene (mixture of isomers)

EC: 215-535-7 CAS: 1330-20-7

Index no: 601-022-00-9

Registration no: 01-2119488216-32-XXXX

Flam. Liq. 3, H226, Asp. Tox1, H304; Acute Tox. 4, H332, Acute Tox. 4, H312, Skin Irrit. 2, H315; Eye

Irrit.2, H319; STOT SE 3, H335; STOT RE 2, H373

If dangerous components are listed, full text of h phrases provided in section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures:

General information:

See section 11 of the Material Safety Data Sheet.

Respiratory tract

In case of inhalation hazard take the victim out of the endangered area, ensure quiet surrounding, protect from heat loss. If necessary, qualified personnel should administer oxygen, in case of no breath perform artificial respiration. **Call a doctor.**

Skin:

In case of contact with skin Take off the clothes and rinse skin with water (if there are no burns). In case of skin irritation symptoms consult a dermatologist.

Eyes:

In case of contact with eyes rinse with plenty of water for about 15 min, avoid strong water jet because of the risk of comea damage.

Alimentary tract:

In case of ingestion do not cause vomiting; immediately ensure medical help. Rinse mouth with water. If the victim is unconscious, act as in case of inhalation.

4.2. Most important symptoms both acute and delayed

Inhalation:

Vapours cause irritation of eyes, nose and throat; cause agitation, have narcotic effect and cause depression to the nervous system; cause headaches and dizziness, cramps, loss of consciousness, coma and respiratory arrest.

Contact with skin:

Degreasing, dryness of skin

Contact with eyes:

Irritation, pain

Ingestion:

Nausea, vomiting, aspiration risk in case of vomiting

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

Symptomatic treatment.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing powders, carbon dioxide, foams, , water spray. Do not use full jet of water.

5.2. Special hazards arising from the substance or mixture

Carbon monoxide and carbon dioxide are generated among combustion products. Vapours form explosive mixtures with the air. Vapours are heavier than the air and may move long distances and accumulate close to the ground; they may cause a risk of ignition and back burning to the leakage source.

MATERIAL SAFETY DATA SHEET Date of issue: 04.05.2012

Updating date: 01.06.2015 Number: 1P1L0318V1



THINNER FOR ACRYLIC PRODUCTS

Page: 4 of 9

5.3. Advice for firefighters

Tanks exposed to fire or high temperature should be cooled by spraying water (danger of bursting of the containers because of pressure build up). If possible, remove them from endangered area. Prevent the leakage of contaminated water into ground and surface water. Collect and dispose according to current regulations. Wear self-contained breathing apparatus and light protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency measures

Use required personal safety measures.

Remove ignition sources (extinguish open flames, do not smoke, do not use sparkling tools). Avoid direct contact with the released substance.

6.2. Environmental precautions

Prevent spreading of the substance or leakage to the sewage system, ditches or rivers by using sand, earth or other adequate barriers; protect sewage manholes. In case of contamination of water or soil inform adequate emergency services.

6.3. Methods and materials for containment and cleaning up.

Stop the leakage if possible; disperse the vapours with water spray; in case of large leakage embank the area; pump out the remaining liquid; cover small amounts of liquid with non flammable binding agent, collect into closed container and rinse contaminated surface with water. Dispose the rinsings as dangerous waste.

6.4. Reference to other sections

Personal protection measures—see section 8 of the Material Safety Data Sheet. Disposal considerations—see section 13 of the Material Safety Data Sheet.

SECTION 7: HANDLING AND STORAGE OF SUBSTANCES AND MIXTURES

7.1. Precautions for safe handling

No smoking or manipulation of open fire. Prevent formation of static electricity. Prevent formation of aerosols. Keep equipment for protection of respiratory tract ready to use. Ensure adequate ventilation in the place of work with the product.

7.2. Conditions for safe storage including any incompatibilities

Store xylene in tightly closed containers in a well ventilated, cool and dry room, with an explosion-proof lighting installation, away from heat sources and sparking tools. Do not store with materials of other class.

7.3. Special end use(s)

No data available.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION MEASURES

8.1. Control parameters

n-butyl acetate:

DNEL value for workers in conditions of prolonged exposure through skin:

DNEL value for workers in conditions of prolonged exposure through inhalation:

DNEL value for general population in conditions of prolonged exposure through skin:

DNEL value for general population in conditions of prolonged exposure through inhalation:

DNEL value for general population in conditions of prolonged exposure through inhalation:

12 mg/m3;

DNEL value for general population in conditions of prolonged exposure through ingestion:

3,4 mg/kg bw/day.

PNEC value for fresh water:

PNEC value for marine water:

PNEC value- intermittent release:

PNEC value for biological sewage treatment plant:

PNEC value for fresh water sediment:

PNEC value for Marine water sediment:

0,18 mg/l;

0,36 mg/l;

35,6 mg/l;

0,981 mg/kg;

PNEC value for Marine water sediment:

0,0981 mg/l

MATERIAL SAFETY DATA SHEET Date of issue: 04.05.2012 Updating date: 01.06.2015 Number: 1P1L0318V1



THINNER FOR ACRYLIC PRODUCTS

Page: 5 of 9

PNEC value for soil: 0,0903 mg/kg

Methoxy propyl acetate:

DNEL value for workers in conditions of prolonged exposure through skin (systemic): 153,5 mg/kg b.w. DNEL value for workers in conditions of prolonged exposure through inhalation (systemic): 275 mg/m3 DNEL value for general population, including the consumers, in conditions of prolonged exposure through skin (systemic): 54,8 mg/kg b.w.

DNEL value for general population, including the consumers, in conditions of prolonged exposure through ingestion (systemic): 1,67 mg/m3

PNEC value for fresh water: 0,635 mg/l
PNEC value for sediment (fresh water): 3,29 mg/l
PNEC value for sediment (marine water): 0,329 mg/l
PNEC value for soil: 0,29 mg/kg
PNEC value for sewage treatment plant: 100 mg/l

Maximum permissible concentrations:

n-butyl acetate:

MPC: 200mg/m3; MPIC: 950mg/m3

<u>xylene:</u>

MPC: 100 mg/m3, MPIC: not determined

ethylbenzene:

MPC: 200mg/m3; MPIC: 400mg/m3

1-methoxy-2-propyl acetate:

MPC: 260 mg/m3; MPIC: 520 mg/m3

Recommendations concerning the procedure of monitoring the content of hazardous components in the air - measurement methodology:

- PN-89/Z-01001/06. Air purity protection. Names, terms and units. Terminology for testing air quality at workplaces.
- PN Z-04008-7:2002. Air purity protection. Sampling. The rules of air sampling in the work environment and interpretation of results.
- PN-EN-689: 2002. Workplace Atmospheres Guidance For The Assessment Of Exposure By Inhalation To Chemical Agents For Comparison With Limit Values And Measurement Strategy.

Caution! If substance concentration is measured and known, personal protection measures should be chosen taking into consideration substance concentration at particular workplace, exposure time and worker's activity. In emergency situations, if the substance concentration at a workplace is unknown, use personal protection measures of the highest recommended class of protection.

The employer is obliged to ensure that the personal protective equipment and clothing and footwear used have protective and functional properties and ensure their proper washing, maintenance, repair and disinfection.

8.2. Exposure control

Respiratory tract protection:

Use in case of lack of proper ventilation of the room.

Eye protection:

Protective goggles / tight protective glasses.

Hand protection:

Protective gloves resistant to solvents.

Technical protective measures:

Ventilation in closed rooms.

Other protective equipment:



Number: 1P1L0318V1 Page: 6 of 9

THINNER FOR ACRYLIC PRODUCTS

Anti-static protective clothes.

General recommendations:

Do not eat, drink or smoke when working with the product. Immediately take off contaminated clothes. Wash hands carefully at the end of work with the product. Prevent leakage into sewage system and ground water.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state liquid
Colour clear liquid
Odour solvent like
Odour threshold no data available
pH no data available
Melting/freezing point [°C]: no data available

Initial boiling point and

boiling range no data available

Flash point [°C]: 27

Evaporation rate no data available

Flammability (solid, gas) not applicable to liquids

Top explosion limit [% V/V]: 11,6 Bottom explosion limit [% V/V]: 2,2

Vapour pressure at 20°C [hPa]: no data available Vapour density with regard to air no data available

Density[kg/m3] at 20°C: 860-880 Solubility in water poor

Solubility in other solvents most of organic solvents

n-octanol/water partition coefficient no data available

Autoignition point, [°C]: 520

Breakdown point, [°C]:

Viscosity [mPa s] at 20°C:

Explosive properties:

Oxidizing properties:

Refractive index

Molecular weight

no data available
no data available
1,460 – 1,470
not applicable

9.2. Other information

Minimum ignition energy: [mJ] Electrical conductivity: [pS/m]

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Vapours may form explosive mixtures with the air.

10.2. Chemical stability

Product stabile under normal conditions.

10.3. Possibility of hazardous reactions

Vapours may form explosive mixtures with the air.

10.4. Conditions to be avoided

High temperature, ignition sources (open flames, sparkles, static discharges.

10.5. Incompatible materials

Strong acids and bases, strong oxidants.

10.6. Hazardous decomposition products

Carbon dioxide and carbon monoxide.

SECTION 11: TOXICOLOGICAL INFORMATION



Number: 1P1L0318V1 Page: 7 of 9

THINNER FOR ACRYLIC PRODUCTS

a) Acute toxicity

Product of reaction mass of ethylbenzene and m-xylene and p-xylene:

Acute toxicity - ingestion:

Estimated acute toxicity: >2000 mg/kg (calculation method)

Acute toxicity - after application on skin:

Estimated acute toxicity: 1466,67 mg/kg (calculation method)

Acute toxicity - inhalation:

Estimated acute toxicity: 12,09 mg/l (calculation method)

n-butyl acetate

Acute toxicity - ingestion: LD50 10760 mg/kg (rat, male/female; acc. to OECD 423)
Acute toxicity - inhalation: LC0 23,4 mg/l//h (rat, male/female; acc. to OECD 403, in vivo,

aerosol)

Acute toxicity – after application on skin: LD50 >14000 mg/kg (rabbit; acc. to OECD 402)

Methoxy propyl acetate

Acute toxicity - ingestion LD50 > 5000 mg/kg (rat). Acute toxicity - after application on skin: LD50 > 5000 mg/kg (rabbit).

Acute toxicity - inhalation: no data available

Estimated acute toxicity for the mixture:

- after application on skin: ATE mix = about 2188 - classification criteria are not met

- inhalation: : ATE mix = about 18

b) Caustic / irritating effect on skin

Causes skin irritation (based on information on components)

Serious eye damage / eye irritation: causes eye irritation (based on information on components)

c) Allergic effect on respiratory tract or skin

Has no allergic effect (based on information on components)

d) Mutagenic effect on germ cells

Based on available data, the classification criteria are not met.

e) Carcinogenicity

Based on available data, the classification criteria are not met.

f) Harmful effect on reproduction

Based on available data, the classification criteria are not met.

Toxic for organs or systems – single exposure: may cause drowsiness or dizziness; may cause respiratory irritation (based on information on components)

g) Toxicity for organs or systems – repeated exposure

May cause damage to organs or systems through prolonged or repeated exposure (based on information on components).

h) Aspiration hazard

May be fatal if swallowed and enters airways (based on information on components).

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Data concerning components of the mixture.

Product of reaction mass of ethyl benzene and m-xylem and p-xylem

Ecotoxicity for fish:

xylene:

LC50 = 20,9 mg/l 96h (Lepomis macrochirus); LC50 = 26,7 mg/l/96h (Pimephales promelas)

Ixonol ACR

o-xylene:

LC50 = 16,1 mg/l/96h (Pimephales promelas);

LC50 = 12 mg/l/96h (Poecilia reticulata);

LC50 = 7.6 mg/l/96h (Oncorhynchus mykiss)



Number: 1P1L0318V1 Page: 8 of 9

THINNER FOR ACRYLIC PRODUCTS

m-xylene:

LC50 = 12,9 mg/l/96h (Poecilia reticulata); LC50 = 8,4 mg/l/96h (Oncorhynchus mykiss)

p-xylene:

LC50 = 8,8 mg/l/96h (Poecilia reticulata); LC50 = 2,6 mg/l/96h (Oncorhynchus mykiss)

Ecotoxicity for crustacea:

o-xylene: LC50 = 1 mg/l/ 24h (Daphnia magna) m-xylene: LC50 = 4,7 mg/l/ 24h (Daphnia magna) p-xylene: LC50 = 3,6 mg/l/ 24h (Daphnia magna)

Ethylbenzene:

Ecotoxicity for fish:

LC50 = 97,1mg/l/96h (Poecilia reticulata); LC50 = 32 mg/l/96h (Lepomis macrochirus)

n-butyl acetate:

Ecotoxicity for fish: LC50 18 mg/l/96h (Pimephales promelas) Ecotoxicity for invertebrates: EC50 44 mg/l/48h (Daphnia sp.)

Ecotoxicity for algae: NOEC 200 mg/l/72h;

ErC50 648 mg/l/72h (Desmodesmus subspicatus)

Ecotoxicity for activated sludge: IC50 356 mg/l/40h (Tetrahymena pyriformis)

1-methoxy-2-propyl acetate

Ecotoxicity for fish: LC/EC/IC50 > 100 mg/l

Ecotoxicity for aquatic invertebrates: LC/EC/IC50 > 100 mg/l

Ecotoxicity for algae: LC/EC/IC50 > 100 mg/l

Chronic toxicity for aquatic organisms:

-fish: NOEC/NOEL > 10 - <= 100 mg/l

-aquatic invertebrates: NOEC/NOEL >100 mg/l -microorganisms: NOEC/IC50 > 100 mg/l

1

12.2. Persistence and degradability

Based on the information on the components of the mixture - the product probably biodrgrades quickly.

12.3. Bioaccumulative potential

No data.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assesment

The components of the mixture do not meet the criteria of PBT or vPvB according to Annex XIII of the REACH regulation.

12.6. Other hazardous effects

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste code:

07 01 04* Other organic solvents, washing liquids and mother liquors.

Do not store with communal waste; prevent leakage into sewage system. Dispose by incineration in special devices complying with the regulations concerning waste disposal.

Empty, uncleaned containers may contain remains of the product (liquid, vapours) and may pose a fire /



Number: 1P1L0318V1 Page: 9 of 9

THINNER FOR ACRYLIC PRODUCTS

explosion hazard. Take special caution. Do not cut, drill or grind uncleaned packagings / containers and do not perform these activities in their vicinity.

SECTION 14: TRANSPORT INFORMATION

14.1. Land / rail transport (ADR/RID).

UN number: 1993

Proper shipping name: Flammable liquids, n.o.s. (contains: Product of mass reaction of ethylbenzene

and m-xylene and p-xylene, n-butyl acetate)

Transport hazard class: class 3, classification code F1

Packaging group: III
Hazard identification number: 30
Warning label: 3



Sign: Not applicable

Tunnel restriction code: D/E

Other information:

14.2. Marine transport (IMDG).

UN number: no data available
Proper shipping name: no data available
Transport hazard class: no data available
Packaging group: no data available

Transport in bulk according to Annex II of MARPOL 73/78 Convention and the IBC Code: no data available

14.3. Air transport (ICAO).

UN number: no data available
Proper shipping name: no data available
Transport hazard class: no data available
Packaging group: no data available

14.4. Transport by inland waterways (ADN).

UN number: no data available
Proper shipping name: no data available
Transport hazard class: no data available
Packaging group: no data available

14.5. Environmental hazard.

The product is not environmentally hazardous according to criteria included in UN model regulation.

14.6. Special precautions for user

No data available

SECTION 15: REGULATORY INFORMATION

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

- Regulation (EC) no 1907/2006 of the European Parliament and of the Council of December 18 2006 concerning (REACH) with following amendments
- Regulation of the European Parliament and of the Council (EC) No 1272/2008 of December 16 2008 on Classification, Labelling and Packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC and amending Regulation (EC) No 1907/2006

(Official Journal of the EU L335/1 of December 31 2008) with following amendments

European agreement concerning international carriage of dangerous goods by road (ADR).

15.2. Chemical safety assessment

Chemical safety assessment of the components of the mixture has been performed.

SECTION 16: OTHER INFORMATION

MATERIAL SAFETY DATA SHEET Date of issue: 04.05.2012 Updating date: 01.06.2015 Number: 1P1L0318V1



Page: 10 of 9

THINNER FOR ACRYLIC PRODUCTS

The above information is based on the current state of knowledge and relates to the product as it is used. Data related to this product is presented to include safety requirements, and not to guarantee its particular characteristics.

In case the conditions of use of the product are not under control of the manufacturer, the user is responsible for the safe use of the product.

The employer is obliged to inform all the employees who are in contact with the product about the hazards and personal protection measures specified in this material safety data sheet.

This material safety data sheet has been developed on the basis of a material safety data sheet provided by the manufacturer and / or online databases as well as applicable regulations on hazardous substances and chemical preparations.

H and EUH phrases:

H225 - Highly flammable liquid and vapour.

H312 - Harmful in contact with skin.

H315 - Causes skin irritation.

H332 - Harmful if inhaled.

H336 - May cause drowsiness or dizziness.

H304 – May be fatal if swallowed and enters airways.

H373 – May cause damage to organs through prolonged or repeated exposure.

EUH 066 - Repeated exposure may cause skin dryness or cracking.

Changes: general update