Date of issue: 29.03.2009 Date of update: 24.10.2014

according to EC Regulation No. 453/2010, Annex II from 20.05.2010

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

1.1 Product ID: 2K FADE OUT THINNER SOLL LOSER (Art. No. S-LOS 05, S-LOS 1)

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

Identified uses: The mixture of organic solvents used for eliminating the contact surface

between old and new coat

Advices against uses: not specified

1.3 Data of the supplier Safety Data Sheet:

Manufacturer: UAB HELVINA

Parko str. 96, Ramuciai LT-54464 Kaunas district

Lithuania

Tel.: +370 37308901 / Fax: +370 37308902 E-mail: info@helvina.lt / www.helvina.lt

1.4 Emergency telephone number:

Poison control and information office: Tel.: +370 5 236 2052 or +370 687 53378

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

Classification 67/548/EWG

Repro.kat.3; R63

R10

Xn; R20

R66

Classification 1272/2008

Flam. Liq. 3; H226

Repr. 2; H361d

Acute Tox. 4; H332

Eye Irrit. 2; H319

Hazard to human health

Suspected of damaging the unborn child. Harmful if inhaled. Causes serious eye irritation.

Environmental hazards

The mixture does not contain any ingredients classified as dangerous for the environment.

Physical/chemical hazards

Flammable liquid and vapour.

2.2 Label elements:

Pictogram(s):



Signal word: Warning

Hazard statements:

H226 - Flammable liquid and vapour.

H319 - Causes serious eye irritation.

H332 - Harmful if inhaled.

H361d - Suspected of damaging the unborn child.

EUH066 – Repeated exposure may cause skin dryness or cracking.

Date of issue: 29.03.2009 Date of update: 24.10.2014

according to EC Regulation No. 453/2010, Annex II from 20.05.2010

Precautionary statements:

P201 - Obtain special instructions before use.

P210 – Keep away from heat / sparks / open flames / hot surfaces – No smoking.

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

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

P308 + P313 – IF exposed or concerned: Get medical advice/attention.

Contains: toluene (CAS: 108-88-3), cyclohexanone (CAS: 108-94-1), methyl isobutyl ketone (CAS: 108-10-1)

2.3 Other hazards:

No other hazards.

No information on the fulfilment of the criteria for PBT or vPvB in accordance with Annex XIII of the REACH Regulation. Appropriate studies have not been conducted.

SECTION 3: Composition / information on ingredients

3.1 Substances:

Not applicable.

3.2 Mixtures:

Hazardous ingredients:

,	Content Classification % 67/548/EWG	CLP classification		
Product identification			Hazard class and category codes	Phrases codes indicating type of hazard
n-butyl acetate CAS: 123-86-4 EINECS: 204-658-1 Index no: 607-025-00-1 REACH no: 01-2119485493-29- XXXX	30 - 45	R10 R66 R67	Flam. Liq. 3 STOT SE 3	H226 H336
2-methoxy-1-methylethyl acetate	20 - 30	R10	Flam Liq.3	H226
CAS: 108-65-6 EINECS: 203-603-9 Index no: 607-195-00-7 REACH no: 01-2119475791-29-				
Cyclohexanone CAS: 108-94-1 EINECS: 203-631-1 Index no: 606-010-00-7 REACH no: 01-2119453616-35- XXXX	10 - 15	R10 Xn; R20	Flam Liq.3 Acute Tox.4	H226 H332
Methyl isobutyl ketone CAS: 108-10-1 WE: 203-550-1 Index no: 606-004-00-7 REACH no: 01-2119473980-30- XXXX	10 - 15	F: R11 Xn; R20 Xi: R36/37 R66	Flam. Liq. 2 Acute Tox. 4 Eye Irrit. 2 STOT SE 3	H225 H332 H319 H335

Date of issue: 29.03.2009 Date of update: 24.10.2014

according to EC Regulation No. 453/2010, Annex II from 20.05.2010

Toluene CAS: 108-88-3 EINECS: 203-625-9 Index no: 601-020-00-8 REACH no: 01-2119471310-51- XXXX	5 - 7	F: R11 Repr.kat.3: R63 Xn: R48/20, R65 Xi: R38 R67	Flam. Liq. 2 Repr. 2 Asp. Tox. 1 STOT RE 2 Skin Irrit. 2 STOT SE 3	H225 H361d H304 H373 H315 H336
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Full text of the R and H phrases provided in section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

IF ON SKIN:

Take off contaminated clothes. Wash contaminated skin with soap and water, rinse with water. If skin irritation or a rash occurs: contact a doctor.

IF IN EYES:

Rinse with plenty of water for about 15 minutes, holding the eyelids wide open. Avoid strong stream of water - risk of cornea damage. In case of irritation and lack of regression, contact a doctor.

IF INHALED:

In case of dizziness or nausea remove victim to fresh air, call a doctor if there is no rapid improvement.

IF SWALLOWED:

Do NOT induce vomiting. Get immediate medical advice / attention. Do not give anything by mouth to an unconscious person.

4.2 The most important symptoms and effects, both acute and delayed:

<u>Respiratory system</u>: Inhalation of concentrated vapours causes drowsiness, headache, dizziness, weakness, fatigue. Harmful if inhaled. May depress central nervous system.

<u>Gastrointestinal tract</u>: irritation of oral cavity, tongue, throat and further parts of gastrointestinal tract. absorption may experience symptoms of food poisoning, abdominal pain, nausea, vomiting.

Contact with eyes: possible irritation in the case of direct contact

Contact with skin: Repeated exposure may cause skin dryness or cracking.

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

The decision on how to proceed take the doctor after examination of injured.

SECTION 5: Fire fighting measures

5.1 Extinguishing media:

Appropriate extinguishing media: alcohol-resistant foam or dry powder (A,B,C), carbon dioxide (CO₂ type extinguisher), sand or soil, water fog. Use suitable fire extinguishing methods depending on the conditions. **Inappropriate extinguishing media:** Strong stream of water.

5.2 Special hazards arising from the substance or mixture: flammable product, during a fire, high temperatures can cause release of toxic decomposition products which contain inter alia: carbon oxides, nitrogen oxides. Vapours are able to form explosive mixtures with air. Heavier than air they accumulate in depressions or in lower parts of the room – can cause the phenomenon of flashback.

5.3 Advice for firefighters:

Cool containers situated in zone of fire by spraying water, if possible, remove from the danger zone. In case of fire in a closed room wear protective clothing and self-contained breathing apparatus. Do not allow to get through the extinguishing water to surface water, groundwater and sewage system.

Page: 3 of 11

Date of issue: 29.03.2009 Date of update: 24.10.2014

according to EC Regulation No. 453/2010, Annex II from 20.05.2010

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For persons not being the members of aid giving staff: inform the appropriate service. Remove from the danger zone people not involved in the liquidation of accident. Remove all possible sources of ignition.

For persons giving aid: Ensure proper ventilation, use protective gloves, protective shoes and protective clothing. In the case of splashing of the product use protective glasses or protective mask. Do not breathe vapours. Use personal respiratory system protection.

6.2 Environmental precautions:

Prevent from spreading and leakage into sewage system and water reservoir. In case of inability inform the local authorities to provide protection.

6.3 Methods and materials for containment and cleaning up:

Prevent from spreading and remove by gathering on absorbent material (sand, sawdust, diatomaceous soil, universal absorbent). Contaminated material put in properly labelled containers for disposal in accordance with applicable regulations.

6.4 Reference to other sections

Disposal considerations - see section 13 of the Safety Data Sheet.

Personal protection measures – see section 8 of the Safety Data Sheet.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:

Use only in well ventilated area – required ventilation at floor, do not store in sealed enclosed spaces. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Avoid spilling. Avoid breathing vapours. Do not allow to exceed the NDS value in the workplace for the product components. Avoid sources of ignition, heat, hot surfaces and open flames. Apply measures against electrostatic charges – appropriate neutralization and protective earthing during e.g. transferring contents of the containers. It is recommended to wear anti-static clothing and footwear during handling the product. Floor of the room where product is stored or used should be made of electrically conductive materials. Make sure if the electric lighting and wiring are working properly and do not constitute a potential source of ignition. Do not use cutting tools that cause sparks. Do not empty the container by the pressure method - the container is not a pressure vessel.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a cool (storage temperature 5° C - 30° C), dry, well-ventilated room. Store in properly labelled and tightly closed original container. Avoid direct sunlight and sources of heat, hot surfaces and open flames. If repackaging is necessary, make sure that the new packaging is suitable for the type of product. After opening close tightly containers and set upright to prevent leakage of the product. Do not store near oxidizing agents, strongly alkaline, strongly acidic products and combustible materials. Protect from moisture and water access.

7.3 Special end use(s): The mixture of organic solvents used for eliminating the contact surface between old and new coat

SECTION 8: Exposure control/personal protection

8.1 Control parameters:

Components, for which exposure standards are in force.

	NDS	NDSCh	NDSP
Name / type of component		mg/m³	
Methyl isobutyl ketone	83	200	-
Cyclohexanone	40	80	-

Page: 4 of 11

Date of issue: 29.03.2009 Date of update: 24.10.2014

according to EC Regulation No. 453/2010, Annex II from 20.05.2010

n-butyl acetate	200	950	-
Toluene	100	200	-
2-methoxy-1-methylethyl acetate	260	520	-

n-butyl acetate:

DNEL for workers, prolonged exposure through the skin: 7mg/kg mc/day DNEL for workers, prolonged exposure through inhalation: 48mg/m³

DNEL for consumer, prolonged exposure through the skin: 3,4mg/kg mc/day DNEL for consumer, prolonged exposure through inhalation: 12mg/m³ DNEL for consumer, prolonged exposure if swallowed: 3,4mg/kg mc/day

PNEC freshwater: 0,18mg/l PNEC sea water: 0,018mg/l PNEC periodic release: 0,36mg/l

PNEC sewage treatment plant: 35,6mg/l PNEC freshwater sediment: 0,981mg/kg PNEC sea waters sediment: 0,0981mg/l

PNEC soil: 0,0903mg/kg

2-methoxy-1-methylethyl acetate

DNEL for workers, prolonged exposure through the skin (systemic effects): 153,5mg/kg mc DNEL for workers, prolonged exposure through inhalation (systemic effects): 275mg/m³ DNEL for consumer, prolonged exposure through the skin (systemic effects): 54,8mg/kg mc DNEL for consumer, prolonged exposure if swallowed (systemic effects): 1,67mg/kg mc/day

PNEC freshwater: 0,635mg/l

PNEC freshwater sediment: 3,29mg/kg PNEC sea waters sediment: 0,329mg/l

PNEC soil: 0,29mg/kg

PNEC sewage treatment plant: 100mg/l

8.2 Exposure control:

Appropriate technical control measures: use of general ventilation of the room is recommended.

Individual protection measures, such as personal protective equipment:





Eye or face protection:

Wear protective glasses or protective mask (in accordance with EN 166).

Skin protection:

Hand protection:

Use protective gloves resistant to chemicals, made of viton, 0,7 mm thick, penetration time > 480 min or nitrile rubber, 0,4 mm thick, penetration time > 30 min in accordance to EN-PN 374:2005.

The material from which the gloves are made:

Choice of suitable gloves depends not only on the material, but also on the brand and quality that depend on manufacturer. Resistance of the material from which gloves are made can be determined after testing. The exact time of the destruction of the protective gloves must be determined by the manufacturer.

Other:

Wear protective clothing working – wash regularly.

Respiratory system protection:

Avoid breathing vapours. In case of exceeding the NDS value in the workplace use personal respiratory system protection – mask or half mask with filter and universal or A type vapour absorber (class 1,2 or 3) in accordance with EN 141.

Thermal hazards:

Not applicable.

Control of environmental exposure

Do not allow to spread in the environment and leakage to sewage system and watercourses.

Date of issue: 29.03.2009 Date of update: 24.10.2014

according to EC Regulation No. 453/2010, Annex II from 20.05.2010

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Colour	colourless
Odour	solvent - ester
Odour threshold	not specified
рН	not applicable
Melting point (range)	not applicable
Boiling point (range)	not specified
Flash point	24 ⁻ C
Ignition temperature	not specified
Evaporation rate	not specified
Flammability (solid, gas)	not specified
Bottom explosion limit	not specified
Top explosive limit	not specified
Vapour pressure (20□C)	13 hPa (n-butyl acetate)
Relative vapour density	4,0 (n- butyl acetate)
Solubility in water	very weak
N-octanol / water division ratio	1,85 (n- butyl acetate)
Autoignition point	>270 [□] C
Breakdown point	not specified
Viscosity ISO 2431 (4 mm)	not specified
Explosive properties	not applicable
Oxidizing properties	not applicable

9.2 Other information:

No additional test results.

SECTION 10: Stability and reactivity

10.1 Reactivity:

Unknown.

10.2 Chemical stability:

Product remains stable under normal use, storage and transport conditions.

10.3 Possibility of hazardous reactions:

SAFETY DATA SHEET

SOLL LOSER

Date of issue: 29.03.2009 Date of update: 24.10.2014

according to EC Regulation No. 453/2010, Annex II from 20.05.2010

Possibility of reaction with strong oxidizing agents and strong acids. Contact with water causes the release of carbon dioxide which may cause increase of pressure in the container.

10.4 Conditions to be avoided:

Avoid high temperature, direct sunlight, hot surfaces and open flames. Protect from moisture and water access.

10.5 Incompatible materials:

Strong oxidizing agents, strong acids

10.6 Hazardous decomposition products:

Carbon oxides. Nitrogen oxides.

SECTION 11: Toxicological information

11.1 Information on toxicological effects:

a) acute toxicity: Harmful if inhaled

n-butyl acetate

LD₅₀ (rat, male; orally) 10760 mg/kg

LC₅₀ (rat, male, female; inhalation) 23,4mg/l/h (In vivo, aerosol)

 LD_{50} (rabbit; skin) >14000mg/kg

Toluene

 LD_{50} (rat; orally) 636 mg/kg LC_{50} (rat; inhalation) 49 mg/ m (4 h) LD_{50} (rabbit; skin) 12124 mg/kg

Methyl isobutyl ketone

 $\begin{array}{ll} \text{LD}_{50} \, (\text{rat; orally}) & 2000 - 5000 \, \text{mg/kg} \\ \text{LC}_{50} \, (\text{rat; inhalation}) & 10 - 20 \, \text{mg/l (4 h)} \\ \text{LD}_{50} \, (\text{rabbit; skin}) & > 5000 \, \text{mg/kg} \end{array}$

Cyclohexanone

 LD_{50} (rat; orally) 1890 - 2650 mg/kg LC_{50} (rat; inhalation) 6,2 mg/l (4 h) LD_{50} (rabbit; skin) 794 - 3160 mg/kg

- b) irritating effect: irritating to eyes
- c) caustic effect: does not show
- d) allergenic effects: does not show
- e) toxicity for repeated exposure: does not show
- f) cancerogenity: does not show g) mutagenity: does not show
- h) harmful effect on reproduction: Suspected of damaging the unborn child

Information on likely routes of exposure:

<u>Respiratory system</u>: Inhalation of concentrated vapours causes drowsiness, headache, dizziness, weakness, fatigue. Harmful if inhaled. May depress central nervous system.

<u>Gastrointestinal tract</u>: irritation of oral cavity, tongue, throat and further parts of gastrointestinal tract. absorption may experience symptoms of food poisoning, abdominal pain, nausea, vomiting.

Contact with eyes: possible irritation in the case of direct contact

Contact with skin: Repeated exposure may cause skin dryness or cracking.

Delayed and immediate and chronic effects from short-and long-term exposure:

The product may cause strong irritation and / or hypersensitivity of the respiratory system, difficulty in breathing, shortness of breath and asthma symptoms. You may experience headache, balance disorders, fatigue, and even loss of consciousness. Persons with asthmatic problems, chronic respiratory disease should not work with the product.

The effects of the interaction:

No data.

SECTION 12: Ecological information

Detailed studies of the environmental effects of the mixture were not carried out. Harmful to aquatic life with long lasting effects. Do not allow to leakage to ground water sewage system and watercourses.

12.1 Toxicity:

n-butyl acetate:

Page: 7 of 10

Date of issue: 29.03.2009 Date of update: 24.10.2014

Date of issue. 29.03.2009	Date of update. 24. 10.2014			
according to EC Regulation No. 453/2010, Annex II from 20.05.2010				
LC ₅₀ – fish (Pimephales promelas)	18 mg/l, 96h			
EC ₅₀ – invertebrates (Daphnia sp.)	44 mg/l, 48h			
NOEC – algae (Desmodesmus subspicatus)	200 mg/l, 72h			
ErC ₅₀ – algae (Desmodesmus subspicatus)	648 mg/l, 72h			
IC ₅₀ – activated sludge (Tetrahymena pyriformis)	356 mg/l, 40h			
Toluene:				
Acute toxicity (LC50/96 h) to fish:				
- Lepomis macrochirus	24,0 mg/l			
- Carassius auratus	22,8 mg/l			
– Poecilia recticulata	59,3 mg/l			
Acute toxicity (EC50/48 h) to crustacea Daphnia magna	313 mg/l			
Methyl isobutyl ketone:				
Acute toxicity to fish				
LL/EL/IL50	100 mg/l			
Acute toxicity to aquatic invertebrates				
LL/EL/IL50	100 mg/l			
Acute toxicity to algae				
LL/EL/IL50	100 mg/l			
Acute toxicity to microorganisms	400 //			
LL/EL/IL50	100 mg/l			
Chronic toxicity to aquatic invertebrates	40 400 //			
NOEC/NOEL –	10 – 100 mg/l			
Cyclohexanone				
Acute toxicity to fish	507 700 xxx /xx ³ /001			
LC ₅₀ (Pimephales promelas)	527 – 732 mg/m ⁷ /96h			
LC ₅₀ (Leuciscus idus)	536 – 752 mg/dm³/48h			
Acute toxicity to invertebrates	3 3			
EC ₅₀ Daphnia magna	820 mg/dm /24h, LC50 - 800mg/dm 24h			
Chronic toxicity to algae EC ₅₀	32,9 mg/dm ³ /72h,			
EC ₁₀	3,56 mg/dm ³ /72h			
Chronic toxicity to algae	3,30 mg/am //2m			
EC ₃	370 mg/dm ³ /8days			
Toxicity to microorganisms	oro inglain loadys			
Toxiony to mioroorganisms				

1000 mg/l/30 min.

12.2 Persistence and degradability:

No data.

EC₅₀

12.3 Bioaccumulative potential:

n-butyl acetate: log Ko/w: 2,3 (BCF expected: 15,3) – substance is not expected to bio accumulate.

2-methoxy-1-methylethyl acetate: log Po/w: 0,56

12.4 Mobility in soil:

n-butyl acetate: Ko/c: 1,27 (estimated value)

2-methoxy-1-methylethyl acetate: Ko/c: 1,7 (estimated value)

12.5 Results of PBT and vPvB assessment:

No data.

12.6 Other adverse effects:

No data.

SECTION 13: Disposal considerations

13.1 Waste treatment methods:

Disposable containers and waste must be disposed by authorized firm. Disposal procedure should be agreed with area competent department of environmental protection. Rest of product store in original containers. Dispose in accordance with applicable regulations. Empty containers must be disposed in accordance with applicable regulations or deliver to suitable garbage dump.

Page: 8 of 10

SAFETY DATA SHEET

SOLL LOSER

Date of issue: 29.03.2009 Date of update: 24.10.2014

according to EC Regulation No. 453/2010, Annex II from 20.05.2010

SECTION 14: Transport information

14.1 UN number (ONZ number): 1263

14.2 UN proper shipping name: PAINT OR PAINT RELATED MATERIAL

14.3 Transport hazard class(es): 3

14.4 Packaging group: III

14.5 Environmental hazards: none

14.6 Special precautions for user: always transport in closed containers that are upright, labelled and secured.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 Convention and the IBC Code: no information.

SECTION 15: Regulatory information

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

- * Regulation (EC) No 1907/2006 of THE EUROPEAN PARLIAMENT AND THE COUNCIL of 18 December 2006 Concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), with subsequent amendments.
- *Commission Regulation (EU) No. 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of THE EUROPEAN PARLIAMENT AND THE COUNCIL Concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).
- * Regulation (EC) No 1272/2008 (CLP) (Article 55, Annex VI, Table 3.2) of THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, with subsequent amendments.
- * Council Directive No. 75/442/EEC On waste and Council Directive No. 91/689/EEC On hazardous waste. Commission Decision No 2000/532/EC of 3 May 2000, stating the list of waste, OJ No. L 226 / 3, 6 September 2000, along with changing decisions.

15.2 Chemical safety assessment:

No chemical safety assessment for the substances, and the mixture.

SECTION 16: Other information

R and H phrases:

R10 - Flammable.

R11 - Highly flammable.

R20 – Harmful by inhalation.

R36/37 - Irritating to eyes and respiratory system

R38 – Irritating to skin.

R48/20 – Harmful: danger of serious damage to health by prolonged exposure through inhalation.

R63 - Possible risk of harm to the unborn child.

R65 – Harmful: may cause lung damage if swallowed.

R66 - Repeated exposure may cause skin dryness or cracking.

R67 – Vapours may cause drowsiness and dizziness.

H225 - Highly flammable liquid and vapour.

H226 - Flammable liquid and vapour.

H304 – May be fatal if swallowed and enters airways.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H332 - Harmful if inhaled.

H335 – May cause respiratory irritation.

H336 – May cause drowsiness or dizziness.

Date of issue: 29.03.2009 Date of update: 24.10.2014

according to EC Regulation No. 453/2010, Annex II from 20.05.2010

H361d – Suspected of damaging the unborn child.

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

Explanation of the abbreviations, acronyms and symbols used in the Safety Data Sheet:

F – Highly flammable.

Xn – Harmful

Xi - Irritant

Flam. Liq. 2 - Liquid, flammable substances, category 2

Flam. Liq. 3 - Liquid, flammable substances, category 3

Acute Tox. 4 - Acute toxicity, category 4

Eye Irrit. 2 – Eye irritation, category 2

Repr. 2 – Reproductive toxicity, category 2

STOT RE 2 – Specific target organ toxicity – repeated exposure, category 2

Asp. Tox. 1 – Aspiration hazard, category 1

Skin Irrit. 2 – Irritating effect on skin, category 2

STOT SE 3 – Toxic effect on target organs – single exposure, category 3

NDS – Maximum permissible concentration of substances in the workplace

NDSP – Maximum permissible ceiling concentration

NDSCh – Maximum permissible instantaneous concentration

Training:

Before starting handling the product, workers must undergo obligatorily occupational health and safety training because of presence of chemicals in the workplace. Perform, document and familiarize employees with the results of risk assessment in the workplace due to the presence of chemical agents.

The information of this Material Safety Data Sheet is based on the present state of knowledge and on current EU and national laws, as the users' working conditions are beyond our knowledge and control. The product is not to be used for other purposes than those specified, without first obtaining written handling instruction. It is always the responsibility of the user to take all necessary steps in order to fulfill the demand laid down in the local rules and legislation. The information in this Material Safety Data Sheet is meant as a description of the safety requirements of the product and it is not to be considered as a guarantee of the product's properties.

Page: 10 of 10