

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

1.1 Product identifier

Trade name: Verstärker RE

Article number: ZUB01563

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

No further relevant information available.

Application of the substance / the mixture confectioning solution

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

ContiTech Conveyor Belt Group

Breslauerstr. 14

D-37154 Northeim

+49 5551-702207

Further information obtainable from:

Hazardous substances management

industriehygiene@conti.de

1.4 Emergency telephone number: Phone: +49 (0)511 976-3300

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS06 skull and crossbones

Acute Tox. 2 H330 Fatal if inhaled.



GHS08 health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Carc. 2 H351 Suspected of causing cancer.



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H336 May cause drowsiness or dizziness.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified according to the CLP regulation.

Hazard pictograms GHS02, GHS06, GHS08

Signal word Danger

Hazard-determining components of labelling:

Methyldine tri-p-phenylene triisocyanate

ethyl acetate

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Trade name: Verstärker RE

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4,4'-methylenediphenyl diisocyanate
chlorobenzene

Hazard statements

- H225 Highly flammable liquid and vapour.
- H330 Fatal if inhaled.
- H319 Causes serious eye irritation.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H317 May cause an allergic skin reaction.
- H351 Suspected of causing cancer.
- H336 May cause drowsiness or dizziness.
- H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

- 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/fume/gas/mist/vapours/spray.
- P284 [In case of inadequate ventilation] wear respiratory protection.
- P241 Use explosion-proof electrical/ventilating/lighting/equipment.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER/doctor.
- P320 Specific treatment is urgent (see on this label).
- P405 Store locked up.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information:

Contains isocyanates. May produce an allergic reaction.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures

Description: Solvent mixture

Dangerous components:

CAS: 141-78-6 EINECS: 205-500-4 Reg.nr.: 01-2119475103-46	ethyl acetate ☠ Flam. Liq. 2, H225; ☠ Eye Irrit. 2, H319; STOT SE 3, H336	50-100%
CAS: 2422-91-5 EINECS: 219-351-8	Methylidine tri-p-phenylene triisocyanate ☠ Acute Tox. 1, H330; ☠ Resp. Sens. 1, H334	10-<25%
CAS: 108-90-7 EINECS: 203-628-5 Reg.nr.: 01-2119432722-45	chlorobenzene ☠ Flam. Liq. 3, H226; ☠ Aquatic Chronic 2, H411; ☠ Acute Tox. 4, H332	2,5-<10%
CAS: 101-68-8 EINECS: 202-966-0 Reg.nr.: 01-2119457014-47	4,4'-methylenediphenyl diisocyanate ☠ Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; ☠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	1,0- 2,5%

Additional information: For the wording of the listed risk phrases refer to section 16.

EU

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SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

Immediately remove any clothing soiled by the product.

Take affected persons out of danger area.

After inhalation: Supply fresh air and to be sure call for a doctor.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed

Headache, dizziness, feeling of sickness, anaesthetization, dry skin, irritation of skin, eyes and respiratory system.

Hazards

Small amounts that come into the lungs during swallowing or vomiting may cause severe injury of the lungs (lung oedema, pneumonia).

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: CO₂, sand, extinguishing powder.

For safety reasons unsuitable extinguishing agents: Water

5.2 Special hazards arising from the substance or mixture

Can form explosive gas-air mixtures.

In case of fire, the following can be released: CO, CO₂, NO_x, SO₂, carbon black, pyrolysis products

5.3 Advice for firefighters

Protective equipment:

Mouth respiratory protective device.

Wear self-contained respiratory protective device.

Do not inhale explosion gases or combustion gases.

Additional information Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources.

6.2 Environmental precautions:

Do not allow to enter sewers/surface or ground water.

Inform respective authorities in case of seepage into water course or sewage system.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Do not flush with water or aqueous cleansing agents

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

Information about fire - and explosion protection:

Product is flammable. Do not smoke. Keep away from ignition sources.

Protect against electrostatic charges.

Use explosion-proof apparatus / fittings and spark-proof tools.

Fumes can combine with air to form an explosive mixture.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

Store in a cool location.

Provide solvent resistant, sealed floor.

Information about storage in one common storage facility:

Do not store together with food, animal feedingstuff or textiles. See recommendation of the German Chemical Industry Association (VCI), September 1993.

Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

Storage class: 3 Flammable liquids (Flash point < 55 °C)

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

141-78-6 ethyl acetate

AGW (Germany)	Long-term value: 1500 mg/m ³ , 400 ppm 2(I);DFG, Y
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WEL (Great Britain)	Short-term value: 400 ppm Long-term value: 200 ppm
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108-90-7 chlorobenzene

IOELV (EU)	Short-term value: 70 mg/m ³ , 15 ppm Long-term value: 23 mg/m ³ , 5 ppm
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AGW (Germany)	Long-term value: 47 mg/m ³ , 10 ppm 2(II);DFG, EU, Y
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WEL (Great Britain)	Short-term value: 14 mg/m ³ , 3 ppm Long-term value: 4.7 mg/m ³ , 1 ppm Sk
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101-68-8 4,4'-methylenediphenyl diisocyanate

AGW (Germany)	Long-term value: 0,05 E mg/m ³ 1;=2=(I);DFG, 11, 12, H, Sah, Y
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WEL (Great Britain)	Short-term value: 0,07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
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DNELs

141-78-6 ethyl acetate

Dermal	DNEL Worker long-term systemic	63 mg/kg bw/d (-)
Inhalative	DNEL Worker long-term systemic	734 mg/m ³ (-)
	DNEL Worker acute/short-term systemic	1468 mg/m ³ (-)
	DNEL Worker long-term local effects	734 mg/m ³ (-)
	DNEL Worker acute/short-term local effects	1468 mg/m ³ (-)

2422-91-5 Methylidine tri-p-phenylene triisocyanate

Inhalative	DNEL Worker acute/short-term local effects	0,096 mg/m ³ (-)
	DNEL Public long-term local effects	0,048 mg/m ³ (-)

108-90-7 chlorobenzene

Dermal	DNEL Worker long-term systemic	12 mg/kg bw/d (-)
Inhalative	DNEL Worker long-term systemic	42,3 mg/m ³ (-)
	DNEL Worker acute/short-term systemic	94 mg/m ³ (-)
	DNEL Worker acute/short-term local effects	94 mg/m ³ (-)
	DNEL Public long-term local effects	42,3 mg/m ³ (-)

101-68-8 4,4'-methylenediphenyl diisocyanate

Inhalative	DNEL Worker long-term local effects	0,05 mg/m ³ (-)
	DNEL Worker acute/short-term local effects	0,1 mg/m ³ (-)

PNECs

141-78-6 ethyl acetate

PNEC aqua (fresh water)	0,24 mg/L (-)
PNEC aqua (marine water)	0,024 mg/L (-)
PNEC aqua (intermittent releases)	1,65 mg/L (-)
PNEC STP	650 mg/L (-)
PNEC sediment (fresh water)	1,15 mg/kg sedim dw (-)
PNEC sediment (marine water)	0,115 mg/kg sedim dw (-)
PNEC soil	0,148 mg/kg soil dw (-)

2422-91-5 Methylidine tri-p-phenylene triisocyanate

PNEC aqua (fresh water)	0,1 mg/L (-)
PNEC aqua (marine water)	0,01 mg/L (-)
PNEC aqua (intermittent releases)	1 mg/L (-)
PNEC STP	100 mg/L (-)
PNEC sediment (fresh water)	16700 mg/kg sedim dw (-)
PNEC sediment (marine water)	1670 mg/kg sedim dw (-)
PNEC soil	3330 mg/kg soil dw (-)

108-90-7 chlorobenzene

PNEC aqua (fresh water)	0,025 mg/L (-)
PNEC aqua (marine water)	0,0025 mg/L (-)
PNEC aqua (intermittent releases)	0,066 mg/L (-)
PNEC STP	1,4 mg/L (-)
PNEC sediment (fresh water)	0,675 mg/kg sedim dw (-)
PNEC sediment (marine water)	0,0675 mg/kg sedim dw (-)
PNEC soil	0,118 mg/kg soil dw (-)

101-68-8 4,4'-methylenediphenyl diisocyanate

PNEC aqua (fresh water)	1 mg/L (-)
PNEC aqua (marine water)	0,1 mg/L (-)

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PNEC aqua (intermittent releases)	10 mg/L (-)
PNEC STP	1 mg/L (-)
PNEC soil	1 mg/kg soil dw (-)

Ingredients with biological limit values:

108-90-7 chlorobenzene

BGW (Germany)	25 mg/g Kreatinin Untersuchungsmaterial: Urin Probennahmezeitpunkt: vor nachfolgender Schicht Parameter: 4-Chlorkatechol (nach Hydrolyse)
	150 mg/g Kreatinin Untersuchungsmaterial: Urin Probennahmezeitpunkt: Expositionsende bzw. Schichtende Parameter: 4-Chlorkatechol (nach Hydrolyse)

101-68-8 4,4'-methylenediphenyl diisocyanate

BGW (Germany)	10 µg/g Kreatinin Untersuchungsmaterial: Urin Probennahmezeitpunkt: Expositionsende bzw. Schichtende Parameter: 4,4'-Diaminodiphenylmethan
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8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

Respiratory protection:

If occupational exposure limits are exceeded, use breathing mask (filter type A). Wear self-contained breathing apparatus in case of danger of oxygen displacement.

Protection of hands:



Solvent resistant gloves

We recommend skin care and preventive skin protection. Protective gloves made of rubber are only recommended for sensitised persons.

Eye protection:



Tightly sealed goggles

Body protection: Wear antistatic safety shoes.

Limitation and supervision of exposure into the environment

See section 6 and 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form:	Fluid
Colour:	Colourless
Odour:	Characteristic

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Odour threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	> 60 °C
Flash point:	< 0 °C
Flammability (solid, gaseous):	Not applicable.
Ignition temperature:	
Decomposition temperature:	Not determined.
Self-igniting:	Product is not selfigniting.
Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapour pressure:	Not determined.
Density:	Not determined.
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.
water:	Not miscible or difficult to mix.
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 further relevant information available.

10.2 Chemical stability

Thermal decomposition / conditions to be avoided:

Under atmospheric pressure distillation of solvent(s) without decomposition possible

Thermal decomposition at sustained high temperatures exceeding 250 °C.

10.3 Possibility of hazardous reactions Forms explosive gas mixture with air.

10.4 Conditions to avoid Avoid heat, sparks, open flames and other ignition sources.

10.5 Incompatible materials: Strong oxidizing agents

10.6 Hazardous decomposition products: See items 5 and 8

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Fatal if inhaled.

LD/LC50 values relevant for classification:

101-68-8 4,4'-methylenediphenyl diisocyanate

Inhalative	LC50 (Stäube und Nebel)	0,4312 mg/l (rat)
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Primary irritant effect:

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

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

Carcinogenicity

Suspected of causing cancer.

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

STOT-single exposure

May cause drowsiness or dizziness.

STOT-repeated exposure Based on available data, the classification criteria are not met.

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

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability No further relevant information available.

Other information: No data available for the preparation itself.

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

Ecotoxicological effects:

Remark: No data available for the preparation itself

Additional ecological information:

General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste disposal according EC-regulations 75/442/EEC and 91/689/EEC in the corresponding versions, covering waste and dangerous waste.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN-Number

ADR, IMDG, IATA

UN1992

14.2 UN proper shipping name

ADR, IMDG

FLAMMABLE LIQUID, TOXIC, N.O.S. (ETHYL ACETATE, Methylidine tri-p-phenylene triisocyanate)

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IATA	Flammable liquids, toxic, n.o.s. (Ethyl acetate, Methylidine tri-p-phenylene triisocyanate)
14.3 Transport hazard class(es)	
ADR	
Class Label	3 Flammable liquids. 3+6.1
IMDG	
Class Label	3 Flammable liquids. 3/6.1
IATA	
Class Label	3 Flammable liquids. 3 (6.1)
14.4 Packing group ADR, IMDG, IATA	II
14.5 Environmental hazards: Special marking (IATA):	PI 355, 366
14.6 Special precautions for user Danger code: EMS Number: Stowage Category Stowage Code	Warning: Flammable liquids. 336 F-E,S-D B SW2 Clear of living quarters.
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
Transport/Additional information:	
ADR Limited quantities (LQ) Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
Transport category Tunnel restriction code	2 D/E
IMDG Limited quantities (LQ) Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml

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UN "Model Regulation":	UN 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (ETHYL ACETATE, METHYLIDINE TRI-P-PHENYLENE TRIISOCYANATE), 3 (6.1), II
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SECTION 15: Regulatory information

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

Directive 2012/18/EU

Named dangerous substances - ANNEX I None of the ingredients is listed.

Seveso category

H2 ACUTE TOXIC

P5c FLAMMABLE LIQUIDS

Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t

Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t

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

SECTION 16: Other information

This information is 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.

Relevant phrases

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H330 Fatal if inhaled.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer.

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

H411 Toxic to aquatic life with long lasting effects.

Recommended restriction of use For industrial purposes only.

Department issuing MSDS:

Hazardous substances management

industriehygiene@conti.de

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)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Acute Tox. 1: Acute toxicity, Hazard Category 1

Acute Tox. 2: Acute toxicity, Hazard Category 2

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Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
Carc. 2: Carcinogenicity, Hazard Category 2
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

Sources

<http://www.dguv.de/ifa/de/gestis/stoffdb/>
<http://echa.europa.eu/information-on-chemicals/cl-inventory>
<http://echa.europa.eu/web/guest/information-on-chemicals/registered-substances>
[http://www.reach-clp-biozid-helpdesk.de/de/Downloads/CLP-VO/
CLP_VO_Anhang_VI_Tabelle_3_2.pdf](http://www.reach-clp-biozid-helpdesk.de/de/Downloads/CLP-VO/CLP_VO_Anhang_VI_Tabelle_3_2.pdf)

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