



SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 453/2010)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : RETROREFLECTIVE PAINT ECHO

Product code : R90000.

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

Paint.

1.3. Details of the supplier of the safety data sheet

Registered company name : STARDUSTCOLORS EURL.

Address : Route de l'Aviation.30131.PUJAUT.France.

Telephone : +33 (0)4 86 65 50 32. Fax : -.

Email : stardustcolors@live.fr

<http://www.stardustcolors.com>

1.4. Emergency telephone number : +33 (0)1 45 42 59 59.

Association/Organisation : INRS / ORFILA <http://www.centres-antipoison.net>.

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Flammable liquid, Category 3 (Flam. Liq. 3, H226).

Acute dermal toxicity, Category 4 (Acute Tox. 4, H312).

Acute inhalation toxicity, Category 4 (Acute Tox. 4, H332).

Skin irritation, Category 2 (Skin Irrit. 2, H315).

Specific target organ toxicity (single exposure), Category 3 (STOT SE 3, H336).

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

Flammable (R 10).

Acute cutaneous toxicity: harmful (Xn, R 21).

Acute inhalation toxicity: harmful (Xn, R 20).

Repeated exposure may cause skin dryness or cracking (R 66).

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :



GHS07



GHS02

Signal Word :

WARNING

Product identifiers :

607-025-00-1

N-BUTYL ACETATE

601-022-00-9

XYLENE

601-023-00-4

ETHYLBENZENE

Hazard statements :

- H226 Flammable liquid and vapour.
H312 + H332 Harmful in contact with skin or if inhaled.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.

Precautionary statements - General :

- P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.

Precautionary statements - Prevention :

- P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
P261 Avoid breathing vapours.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statements - Response :

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

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

CAS: 100-41-4 EC: 202-849-4 ETHYLBENZENE	Dgr Flam. Liq. 2, H225 Acute Tox. 4, H332	Xn;R20 F;R11		
CAS: 1344-28-1 EC: 215-691-6 REACH: 01-2119529248-35-012 3 ALUMINIUM OXIDE (AL2O3)			[1]	2.5 <= x % < 10
CAS: 68551-44-0 EC: 271-378-4 FATTY ACIDS, C6-19-BRANCHED, ZINC SALTS	GHS07, GHS09 Wng Skin Irrit. 2, H315 Aquatic Chronic 1, H410 Aquatic Acute 1, H400	Xi,N Xi;R38 N;R50/53		0 <= x % < 1

Information on ingredients :

[1] Substance for which maximum workplace exposure limits are available.

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures**In the event of exposure by inhalation :**

In the event of massive inhalation of dust, remove the person exposed to fresh air. Keep warm and at rest.

If the person is unconscious, place in recovery position. Notify a doctor in all events, to ascertain whether observation and supportive hospital care will be necessary.

If breathing is irregular or has stopped, effect mouth-to-mouth resuscitation and call a doctor.

Do not proceed with mouth-to-mouth or mouth-to-nose resuscitation.

In the event of splashes or contact with eyes :

Wash thoroughly with soft, clean water for 15 minutes holding the eyelids open.

If there is any redness, pain or visual impairment, consult an ophthalmologist.

In the event of splashes or contact with skin :

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

Remove any soiled or splashed clothing immediately.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

In the event of swallowing :

Do not give the patient anything orally.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

Keep the person exposed at rest. Do not force vomiting.

Seek medical attention immediately, showing the label.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

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

No data available.

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

No data available.

SECTION 5 : FIREFIGHTING MEASURES

Flammable.

Chemical powders, carbon dioxide and other extinguishing gas are suitable for small fires.

5.1. Extinguishing media

Keep packages cool when in the vicinity of flames.

Suitable methods of extinction

In the event of a fire, use :

- Prevent the effluent of fire-fighting measures from entering drains or waterways.

In the event of a fire, do not use :

- water jet

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO₂)

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

Because of the organic solvents contained in the mixture, eliminate sources of ignition and ventilate the area.

Avoid inhaling the vapors.

Avoid any contact with the skin and eyes.

Avoid inhaling dust.

If a large quantity has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.

Fire-fighters will be equipped with suitable personal protective equipment (See section 8).

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

Clean preferably with a detergent, do not use solvents.

No data available.

Requirements relating to storage premises apply to all facilities where the mixture is handled.

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Ensure that there is adequate ventilation, especially in confined areas.

Handle in well-ventilated areas.

Vapours are heavier than air. They can spread along the ground and form mixtures that are explosive with air.

Prevent the formation of flammable or explosive concentrations in air and avoid vapor concentrations higher than the occupational exposure limits.

Prevent the accumulation of electrostatic charges with connections to earth.

The mixture can become electrostatically charged : always earth during decanting operations. Wear antistatic shoes and clothing and floors should be electrically conductive.

Use the mixture in premises free of naked flames or other sources of ignition. 288.0 Tm 1.0000 282.0540 88.3100 Tm ()Tj /F0j

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Avoid inhaling vapors.

Avoid inhaling dust.

Avoid inhaling vapors. Carry out any industrial operation which may give rise to this in a sealed apparatus.

Provide vapor extraction at the emission source and also general ventilation of the premises.

Also provide breathing apparatus for certain short tasks of an exceptional nature and for emergency interventions.

In all cases, recover emissions at source.

Packages which have been opened must be reclosed carefully and stored in an upright position.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

Storage

Keep out of reach of children.

Keep the container tightly closed in a dry, well-ventilated place.

Keep away from all sources of ignition - do not smoke.

Keep well away from all sources of ignition, heat and direct sunlight

Avoid accumulation of electrostatic charges.

The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits :

- European Union (2009/161/EU, 2006/15/EC, 2000/39/EC, 98/24/EC)

CAS	VME-mg/m3 :	VME-ppm :	VLE-mg/m3 :	VLE-ppm :	Notes :
1330-20-7	221	50	442	100	Peau
108-65-6	275	50	550	100	Peau
100-41-4	442	100	884	200	Peau

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
123-86-4	150 ppm	200 ppm	-	-	-
1330-20-7	100 ppm	150 ppm	-	-	-
100-41-4	100 ppm	125 ppm	-	-	-
1344-28-1	10 mg/m3	-	-	-	-

- Germany - AGW (BAuA - TRGS 900, 21/06/2010) :

CAS	VME :	VME :	Excess	Notes
1330-20-7	100 ml/m3	440 mg/m3	2(II)	DFG, H
108-65-6	50 ml/m3	270 mg/m3	1(I)	DFG, EU, Y
100-41-4	100 ml/m3	440 mg/m3	2(I)	EU, H

- Belgium (Order of 19/05/2009, 2010) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
123-86-4	150 ppm	200 ppm	-	-	-
1330-20-7	50 ppm	100 ppm	-	-	-
108-65-6	50 ppm	100 ppm	-	-	-
100-41-4	100 ppm	125 ppm	-	-	-
1344-28-1	10 mg/m3	-	-	-	-

- France (INRS - ED984 :2008) :

CAS	VME-ppm :	VME-mg/m3 :	VLE-ppm :	VLE-mg/m3 :	Notes :	TMP No :
123-86-4	150	710	200	940	-	84
1330-20-7	50	221	100	442	*	4 Bis, 84, *
108-65-6	50	275	100	550	-	-
100-41-4	20	88.4	100	442	*	84

1344-28-1	-	10	-	-	-	-
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- UK / WEL (Workplace exposure limits, EH40/2005, 2007) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
123-86-4	150 ppm	200 ppm	-	-	-
1330-20-7	50 ppm	100 ppm	-	-	-
108-65-6	50 ppm	100 ppm	-	-	-
100-41-4	100 ppm	125 ppm	-	-	-
1344-28-1	10 mg/m3	-	-	-	TI

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Use eye

contact

General information :

Physical state :	viscous liquid.
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Important health, safety and environmental information

pH :	Not relevant.
Flash Point Interval :	23°C <= PE <= 55°C
Vapour pressure (50°C) :	Below 110 kPa (1.10 bar).
Density :	> 1
Water solubility :	Insoluble.

9.2. Other information

No data available.

SECTION 10 : STABILITY AND REACTIVITY**10.1. Reactivity**

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

10.4. Conditions to avoid

Any apparatus likely to produce a flame or to have a metallic surface at high temperature (burners, electric arcs, furnaces etc.) must not be allowed on the premises.

Avoid :

- accumulation of electrostatic charges.
- heating
- heat
- flames and hot surfaces
- formation of dusts

10.5. Incompatible materials

Keep away from :

- oxidising agents
- water

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO₂)

SECTION 11 : TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects**

Exposure to vapours from solvents in the mixture in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system.

Symptoms produced will include headaches, numbness, dizziness, fatigue, muscular asthenia and, in extreme cases, loss of consciousness.

Harmful in contact with skin.

Harmful by inhalation.

May cause irreversible damage to the skin; namely inflammation of the skin or the formation of erythema and eschar or oedema following exposure up to four hours.

Repeated or prolonged contact with the mixture may cause removal of natural oil from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Splashes in the eyes may cause irritation and reversible damage

In the event of dust formed by mechanical action (sanding, sawing, etc..), this dust may cause irritation by inhalation and contact with eyes.

Narcotic effects may occur, such as drowsiness, narcosis, decreased alertness, loss of reflexes, lack of coordination or dizziness.

Effects may also occur in the form of violent headaches or nausea, judgement disorder, giddiness, irritability, fatigue or memory disturbance.

11.1.1. Substances

No toxicological data available for the substances.

11.1.2. Mixture**Acute toxicity :**

Dermal route : Harmful in contact with skin.
1,000 < DL50 <= 2000 mg/kg

Inhalation route (Dusts/mist) : Harmful by inhalation.
Duration of exposure : 4 h
1 < LC50 <= 5 mg/l

Monograph(s) from the IARC (International Agency for Research on Cancer) :

CAS 100-41-4 : IARC Group 2B : The agent is possibly carcinogenic to humans.

CAS 1330-20-7 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

German regulations concerning the classification of hazards for water (WGK) :

WGK 2 (VwVwS vom 27/07/2005, KBws) : Hazardous for water.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2011 - IMDG 2010 - ICAO/IATA 2012).

14.1. UN number

1263

14.2. UN proper shipping name

UN1263=PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning and reducing compound)

14.3. Transport hazard class(es)

- Classification :

3

14.4. Packing group

III

14.5. Environmental hazards

-

14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	3	F1	III	3	30	5 L	163 640EE 650	E1	3	D/E

*Not subject to this regulation if Q < 450L.

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ
	3	-	III	5 L	F-E,S-E	163 223 955	E1

*Not subject to this regulation if Q < 30l

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	3	-	III	355	60 L	366	220 L	A3 A72	E1
	3	-	III	Y344	10 L	-	-	A3 A72	E1

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

No data available.

SECTION 15 : REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****- Classification and labelling information included in section 2:**

The following regulations have been used:

- Directive 67/548/EEC and its adaptations
- Directive 1999/45/EC and its adaptations
- Regulation EC 1272/2008 modified by regulation EC 286/2011

- Container information:

Containers to be fitted with a tactile warning of danger (see EC Regulation No. 1272/2008, Annex II, Part 3).

- Particular provisions :

No data available.

- German regulations concerning the classification of hazards for water (WGK) :

Germany : WGK 2 (VwVwS vom 27/07/2005, KBws)

15.2. Chemical safety assessment

No data available.

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

Hazard symbols :



Harmful

Flammable

Contains :

601-022-00-9

XYLENE

601-023-00-4

ETHYLBENZENE

Risk phrase :

R 20/21

Harmful by inhalation and in contact with skin.

R 10

Flammable.

R 66

Repeated exposure may cause skin dryness or cracking.

Safety phrase :

S 2

Keep out of the reach of children.

S 36/37

Wear suitable protective clothing and gloves.

S 46

If swallowed, seek medical advice immediately and show this container or label.

S 51

Use only in well-ventilated areas.

S 9 Keep container in a well-ventilated place.
S 25 Avoid contact with eyes.

Title for H, EUH and R indications mentioned in section 3 :

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.
R 10	Flammable.
R 11	Highly flammable.
R 20	Harmful by inhalation.
R 20/21	Harmful by inhalation and in contact with skin.
R 38	Irritating to skin.
R 50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R 66	Repeated exposure may cause skin dryness or cracking.
R 67	Vapours may cause drowsiness and dizziness.

Abbreviations :

ADR : European agreement concerning the international carriage of dangerous goods by Road.
IMDG : International Maritime Dangerous Goods.
IATA : International Air Transport Association.
ICAO : International Civil Aviation Organisation
RID : Regulations concerning the International carriage of Dangerous goods by rail.
WGK : Wassergefährdungsklasse (Water Hazard Class).
GHS02 : Flame
GHS07 : Exclamation mark