

CTC-SPRAY / CYCLO SPRAY

Safety Data Sheet (Conforms to Regulation (EC) No 1907/2006)

Issue Date: 6-mrt-2008

Version No: 2.0

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

CTC-SPRAY

SUPPLIER

Company: Eurovet Animal Health BV

Address: Handelsweg 25
5531AD Bladel

Telephone: 0031 497 544300

PRODUCT USE

- Application is by spray atomisation from a hand held aerosol pack, see label.

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

CONSIDERED A DANGEROUS SUBSTANCE ACCORDING TO DIRECTIVE 1999/45/EC AND ITS AMENDMENTS.

RISK

DSD/DPD classification (classification according to Directive 67/548/EEC or Directive 1999/45/EC)

Risk Codes	Risk Phrases
R12	■ Extremely flammable.
R36	■ Irritating to eyes.
R44	■ Risk of explosion if heated under confinement.
R67	■ Vapours may cause drowsiness and dizziness.

CLP classification (classification according to Regulation (EC) No 1272/2008)



Signal Word: DANGER

CLP classification

- Eye Irritation Category 2A
- Flammable Aerosol Category 1
- Respiratory Effects Category 3

Hazard statement(s)

H336 May cause drowsiness or dizziness.
 H336 Extremely flammable aerosol.
 H222 Causes serious eye irritation.
 H319 Causes serious eye irritation.
 H319

Supplementary statement(s)

EUH044 Risk of explosion if heated under confinement.

Precautionary statement(s)
Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 P211 Do not spray on an open flame or other ignition source.
 P251 Pressurized container: Do not pierce or burn, even after use.
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P264 Wash thoroughly after handling.
 P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P304+P340 IF INHALED: Remove 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.
 P312 Call a POISON CENTER or doctor/physician if you feel unwell.
 P337+P313 If eye irritation persists: Get medical advice/attention.

Storage

Code	Phrase
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	INT HAZ	%
isopropanol	67-63-0	F,Xi	10-30
EC NO: 200-661-7			
R CODES: R11, R36, R67			
CLP:Flam. Liq. 2; Eye Irrit. 2; STOT SE 3; Eye Irrit. 2 STOT SE 3			
additives			1-10
butane	106-97-8.	F+	>60
EC NO: 203-448-7			
R CODES: R12			
CLP:Flam. Gas 1;			

Section 4 - FIRST AID MEASURES

SWALLOWED

- Avoid giving milk or oils.
- Avoid giving alcohol.

Not considered a normal route of entry.

- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice.

EYE

■ If aerosols come in contact with the eyes:

- Immediately hold the eyelids apart and flush the eye continuously for at least 15 minutes with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Transport to hospital or doctor without delay.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

■ If solids or aerosol mists are deposited upon the skin:

- Flush skin and hair with running water (and soap if available).
- Remove any adhering solids with industrial skin cleansing cream.
- DO NOT use solvents.
- Seek medical attention in the event of irritation.

INHALED

■ If aerosols, fumes or combustion products are inhaled:

- Remove to fresh air.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
- Transport to hospital, or doctor.

NOTES TO PHYSICIAN

■ For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:

- Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
 - Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO₂ 50 mm Hg) should be intubated.
 - Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
 - A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
 - Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.
 - Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients. [Ellenhorn and Barceloux: Medical Toxicology].
- Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

■ SMALL FIRE:

- Water spray, dry chemical or CO₂

LARGE FIRE:

- Water spray or fog.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- If safe, switch off electrical equipment until vapour fire hazard removed.
- Use water delivered as a fine spray to control fire and cool adjacent area.
- DO NOT approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.
- Equipment should be thoroughly decontaminated after use.

FIRE/EXPLOSION HAZARD

- Liquid and vapour are highly flammable.
- Severe fire hazard when exposed to heat or flame.
- Vapour forms an explosive mixture with air.
- Severe explosion hazard, in the form of vapour, when exposed to flame or spark.
- Vapour may travel a considerable distance to source of ignition.
- Heating may cause expansion or decomposition with violent container rupture.
- Aerosol cans may explode on exposure to naked flames.
- Rupturing containers may rocket and scatter burning materials.
- Hazards may not be restricted to pressure effects.
- May emit acrid, poisonous or corrosive fumes.
- On combustion, may emit toxic fumes of carbon monoxide (CO).

Combustion products include: carbon dioxide (CO₂), other pyrolysis products typical of burning organic material.

Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.

WARNING: Long standing in contact with air and light may result in the formation of potentially explosive peroxides.

FIRE INCOMPATIBILITY

- Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

Personal Protective Equipment

Breathing apparatus.

Gas tight chemical resistant suit.

Limit exposure duration to 1 BA set 30 mins.

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Wear protective clothing, impervious gloves and safety glasses.
- Shut off all possible sources of ignition and increase ventilation.
- Wipe up.
- If safe, damaged cans should be placed in a container outdoors, away from all ignition sources, until pressure has dissipated.
- Undamaged cans should be gathered and stowed safely.

MAJOR SPILLS

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water courses
- No smoking, naked lights or ignition sources.
- Increase ventilation.
- Stop leak if safe to do so.
- Water spray or fog may be used to disperse / absorb vapour.
- Absorb or cover spill with sand, earth, inert materials or vermiculite.
- If safe, damaged cans should be placed in a container outdoors, away from ignition sources, until pressure has dissipated.
- Undamaged cans should be gathered and stowed safely.
- Collect residues and seal in labelled drums for disposal.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- Avoid smoking, naked lights or ignition sources.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- DO NOT incinerate or puncture aerosol cans.
- DO NOT spray directly on humans, exposed food or food utensils.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

SUITABLE CONTAINER

- Aerosol dispenser.
- Check that containers are clearly labelled.

STORAGE INCOMPATIBILITY

■ Alcohols

- are incompatible with strong acids, acid chlorides, acid anhydrides, oxidising and reducing agents.
 - reacts, possibly violently, with alkaline metals and alkaline earth metals to produce hydrogen
 - react with strong acids, strong caustics, aliphatic amines, isocyanates, acetaldehyde, benzoyl peroxide, chromic acid, chromium oxide, dialkylzincs, dichlorine oxide, ethylene oxide, hypochlorous acid, isopropyl chlorocarbonate, lithium tetrahydroaluminate, nitrogen dioxide, pentafluoroguanidine, phosphorus halides, phosphorus pentasulfide, tangerine oil, triethylaluminium, triisobutylaluminium
 - should not be heated above 49 deg. C. when in contact with aluminium equipment.
- Secondary alcohols and some branched primary alcohols may produce potentially explosive peroxides after exposure to light and/ or heat.

STORAGE REQUIREMENTS

- Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can.
- Store in original containers in approved flammable liquid storage area.
- DO NOT store in pits, depressions, basements or areas where vapours may be trapped.

- No smoking, naked lights, heat or ignition sources.
- Keep containers securely sealed. Contents under pressure.
- Store away from incompatible materials.
- Store in a cool, dry, well ventilated area.
- Avoid storage at temperatures higher than 40 deg C.
- Store in an upright position.
- Protect containers against physical damage.
- Check regularly for spills and leaks.
- Observe manufacturer's storing and handling recommendations.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

PERSONAL PROTECTION

RESPIRATOR

Type AX Filter of sufficient capacity

EYE

- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly.

HANDS/FEET

- No special equipment needed when handling small quantities.
- OTHERWISE:
 - For potentially moderate exposures:
 - Wear general protective gloves, eg. light weight rubber gloves.
 - For potentially heavy exposures:
 - Wear chemical protective gloves, eg. PVC. and safety footwear.

OTHER

- The clothing worn by process operators insulated from earth may develop static charges far higher (up to 100 times) than the minimum ignition energies for various flammable gas-air mixtures. This holds true for a wide range of clothing materials including cotton.
- Avoid dangerous levels of charge by ensuring a low resistivity of the surface material worn outermost.

BRETHERRICK: Handbook of Reactive Chemical Hazards.

- Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity.
- For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets), non sparking safety footwear.

No special equipment needed when handling small quantities.

OTHERWISE:

- Overalls.
- Skin cleansing cream.
- Eyewash unit.
- Do not spray on hot surfaces.

ENGINEERING CONTROLS

- General exhaust is adequate under normal conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection.
Provide adequate ventilation in warehouse or closed storage areas.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL PROPERTIES

Liquid.

Gas.

State

Liquid

Solubility in water (g/L)

Partly Miscible

isopropanol	
log Kow (Sangster 1997):	0.05
butane	
log Kow (Sangster 1997):	2.89

APPEARANCE

■ Supplied as an aerosol pack. Contents under PRESSURE. Contains highly flammable hydrocarbon propellant.

Liquid spray; partly mixes with water.

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

- Elevated temperatures.
- Presence of open flame.
- Product is considered stable.
- Hazardous polymerisation will not occur.

For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

■ Although ingestion is not thought to produce harmful effects (as classified under EC Directives), the material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g. liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.

EYE

- This material can cause eye irritation and damage in some persons.
 - Not considered to be a risk because of the extreme volatility of the gas.
 - Isopropanol vapour may cause mild eye irritation at 400 ppm.
- Splashes may cause severe eye irritation, possible corneal burns and eye damage.

SKIN

■ The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.

INHALED

■ The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.

CHRONIC HEALTH EFFECTS

■ There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment.
 Substance accumulation, in the human body, may occur and may cause some concern following repeated or long- term occupational exposure.
 Long term or repeated ingestion exposure of isopropanol may produce incoordination, lethargy and reduced weight gain.
 Repeated inhalation exposure to isopropanol may produce narcosis, incoordination and liver degeneration. Animal data show developmental effects only at exposure levels that produce toxic effects in the adult animals. Isopropanol does not cause genetic damage in bacterial or mammalian cell cultures or in animals. There are inconclusive reports of human sensitisation from skin contact with isopropanol. Chronic alcoholics are more tolerant of systemic isopropanol than are persons who do not consume alcohol; alcoholics have survived as much as 500 ml of 70% isopropanol.
 Continued voluntary drinking of a 2.5% aqueous solution through two successive generations of rats produced no reproductive effects.
 NOTE: Commercial isopropanol does not contain " isopropyl oil" . An excess incidence of sinus and laryngeal cancers in isopropanol production workers has been shown to be caused by the byproduct "isopropyl oil" . Changes in the production processes now ensure that no byproduct is formed. Production changes include use of dilute sulfuric acid at higher temperatures.
 Constant or exposure over long periods to mixed hydrocarbons may produce stupor with dizziness, weakness and visual disturbance, weight loss and anaemia, and reduced liver and kidney function. Skin exposure may result in drying and cracking and redness of the skin. Chronic exposure to lighter hydrocarbons can cause nerve damage, peripheral neuropathy, bone marrow dysfunction and psychiatric disorders as well as damage the liver and kidneys.

TOXICITY AND IRRITATION

■ Not available. Refer to individual constituents.

Section 12 - ECOLOGICAL INFORMATION

This material and its container must be disposed of as hazardous waste.

Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
isopropanol	LOW	MED	LOW	HIGH
butane	LOW		LOW	HIGH

Section 13 - DISPOSAL CONSIDERATIONS

- Consult State Land Waste Management Authority for disposal.
- Discharge contents of damaged aerosol cans at an approved site.
- Allow small quantities to evaporate.
- DO NOT incinerate or puncture aerosol cans.
- Bury residues and emptied aerosol cans at an approved site.

■ According to the European Waste Catalogue, Waste Codes are not product specific but application specific. Waste Codes should be assigned by the User based on the application in which the product is used.

Section 14 - TRANSPORTATION INFORMATION



Labels Required: FLAMMABLE GAS

HAZCHEM:

(1) Not applicable to the carriage of dangerous goods under RID or ADR

Land transport ADR/RID (cross-border):

ADR/RID Class:	2	Hazard identification (Kemler):	None
UN Number:	1950	Packing Group:	None
Classification Code:	5F	Hazard Label:	2.1
Special provisions:	190 327 625		

Shipping Name: AEROSOLS, flammable

Air Transport IATA:

ICAO/IATA Class:	2.1	ICAO/IATA Subrisk:	None
UN/ID Number:	1950	Packing Group:	-
Special provisions:	A145		

Shipping Name: AEROSOLS, FLAMMABLE

Maritime Transport IMDG:

IMDG Class:	2	IMDG Subrisk:	SP63
UN Number:	1950	Packing Group:	None
EMS Number:	F-D , S-U	Special provisions:	63 190 277 327 959
Limited Quantities:	See SP277		

Shipping Name: AEROSOLS 1950

Section 15 - REGULATORY INFORMATION



Annex I of Directive 67/548/EEC

Ingredient Annex 1 67/548/EEC

isopropanol	603-117-00-0
butane	601-004-00-0
butane	601-004-01-8

RISK

Risk Codes	Risk Phrases
R12	■ Extremely flammable.
R36	■ Irritating to eyes.
R44	■ Risk of explosion if heated under confinement.
R67	■ Vapours may cause drowsiness and dizziness.

SAFETY

Safety Codes	Safety Phrases
S16	■ Keep away from sources of ignition. No smoking.
S23	■ Do not breathe gas/ fumes/ vapour/ spray.
S24	■ Avoid contact with skin.
S39	■ Wear eye/ face protection.
S51	■ Use only in well ventilated areas.

S09	■ Keep container in a well ventilated place.
S401	■ To clean the floor and all objects contaminated by this material, use water and detergent.
S07	■ Keep container tightly closed.
S26	■ In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.
S46	■ If swallowed, IMMEDIATELY contact Doctor or Poisons Information Centre (show this container or label).
S60	■ This material and its container must be disposed of as hazardous waste.

Annex II of Directive 67/548/EEC: Indications of Danger

F+ Extremely flammable

Xi Irritant

Annex VI of Regulation (EC) No 1272/2008



H336 May cause drowsiness or dizziness.

H336 Extremely flammable aerosol.

H222 Causes serious eye irritation.

H319 Causes serious eye irritation.

H319

Supplementary statement(s)

EUH044 Risk of explosion if heated under confinement.

Precautionary statement(s)

Prevention

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

P211 Do not spray on an open flame or other ignition source.

P251 Pressurized container: Do not pierce or burn, even after use.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

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

Response

P304+P340 IF INHALED: Remove 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.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P337+P313 If eye irritation persists: Get medical advice/attention.

Storage

Code

Phrase

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.
 P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C.

REGULATIONS

Regulations for ingredients

isopropanol (CAS: 67-63-0) is found on the following regulatory lists;

"European Customs Inventory of Chemical Substances (English)", "European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)"

butane (CAS: 106-97-8) is found on the following regulatory lists;

"European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)"

This safety data sheet is in compliance with the following EU legislation and its adaptations – as far as applicable - : 67/548/EEC, 1999/45/EC, 76/769/EEC, 98/24/EC, 92/85/EEC, 94/33/EC, 91/689/EEC, 1999/13/EC.

Section 16 - OTHER INFORMATION

RISK

Explanation of risk codes used on this MSDS

Risk Codes	Risk Phrases
R11	■ Highly flammable.
R12	■ Extremely flammable.
R36	■ Irritating to eyes.
R44	■ Risk of explosion if heated under confinement.
R67	■ Vapours may cause drowsiness and dizziness.

ANNEX 2: Indications of Danger

F Highly Flammable
 F+ Extremely flammable
 Xi Irritant

■ The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

■ For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

EN 16 Personal eye-protection
 EN 340 Protective clothing
 EN 374 Protective gloves against chemicals and micro-organisms
 EN 13832 Footwear protecting against chemicals
 EN 133 Respiratory protective devices.

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