Glyvak

Safety Data Sheet

according to the Work Health and Safety (WHS) Regulations
Issue date: 5/3/2024 Revision date: 5/3/2024 Version: 1.0

SECTION 1: Product identifier

1.1. GHS Product identifier

Product form : Mixture
Product name : Glyvak
Product code : Formula: LB-GLYVAK/5
Part No: (E)SP-GVAK Series

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Cleaning agent
Industrial use
Restrictions on use : None known

1.4. Details of manufacturer or importer

Distributor
Celeste Industries Corporation
8007 Industrial Park Road
Easton, Maryland 21601 USA
T 1-410-822-5775
info@celestecorp.com - www.celestecorp.com

Distributor
Boeing Distribution Australia Pty Ltd
20-22 Lindaway Place
Tullamarine, Vic 3043
T 61-3-9339-3000 / 61-3-9338-9773
prc@boeing.com

1.5. Emergency phone number

Emergency number : For Chemical Emergency, Spill, Leak, Fire, Exposure or Accident call CHEMTREC (24 hours) within USA and CANADA: 1-800-424-9300; Outside USA and Canada (collect call accepted): 1-703-527-3883

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

Classification according to the model Work Health and Safety Regulations (WHS Regulations)

Skin corrosion/irritation, Category 1C	H314
Serious eye damage/eye irritation, Category 1	H318

2.2. GHS Label elements, including precautionary statements

Hazard pictograms (GHS AU) :

Corrosion

Signal word (GHS AU) : Danger
Contains : Formic acid (1 – 5 %); L-Lactic acid (1 – 5 %); Benzenesulfonic acid, C10-16-alkyl derivatives (1 – 5 %); Dodecylbenzenesulfonic acid (1 – 5 %); Benzenesulfonic acid, 4-C10-13-sec-alkyl derivatives (1 – 5 %)
Hazard statements (GHS AU) : H314 - Causes severe skin burns and eye damage
Precautionary statements (GHS AU) : P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .
P363 - Wash contaminated clothing before reuse.

P304+P340 - IF INHALED: Remove person to fresh air and keep 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.
P310 - Immediately call a POISON CENTER or doctor.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition and information on ingredients

Name	CAS-No.	%
Formic acid	64-18-6	1 – 5
L-Lactic acid	79-33-4	1 – 5
Benzenesulfonic acid, C10-16-alkyl derivatives	68584-22-5	1 – 5
Dodecylbenzenesulfonic acid *(Alternate Chemical for CAS-No.: 68584-22-5)*	27176-87-0	1 – 5
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivatives *(Alternate Chemical for CAS-No.: 68584-22-5)*	85536-14-7	1 – 5
Non hazardous or chemicals not contributing to classification	Proprietary	To 100%

SECTION 4: First aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER/doctor.

First-aid measures after skin contact : If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

First-aid measures after ingestion : IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor. Never give anything by mouth to an unconscious person.

4.2. Symptoms caused by exposure

Symptoms/effects after inhalation : Causes burns to the respiratory system.

Symptoms/effects after skin contact : Causes severe skin burns. Symptoms may include redness, pain, blisters.

Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.

Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

4.3. Medical attention and special treatment

Other medical advice or treatment : Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide (CO2), dry chemical powder, foam. Water fog.

Unsuitable extinguishing media : Do not use water jet.

5.2. Specific hazards arising from the chemical

Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon. Irritating fumes.

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

Hazchem Code : 2X

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.1.1. For non-emergency personnel

Emergency procedures : Do not touch or walk on the spilled product.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and materials for containment and cleaning up

For containment : Stop leak if safe to do so. Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.

Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapours/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Provide adequate ventilation.

Hygiene measures : Take off immediately all contaminated clothing and wash it before reuse. Wash hands, forearms and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep out of the reach of children. Keep container tightly closed. Store in a dry, cool and well-ventilated place. Keep out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. Store in original container. Store locked up.

SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

Formic acid (64-18-6)	
Australia - Occupational Exposure Limits	
OES TWA	9.4 mg/m³
OES TWA	5 ppm
OES STEL	19 mg/m³

Formic acid (64-18-6)	
OES STEL	10 ppm
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	5 ppm
ACGIH OEL STEL	10 ppm

8.2. Biological Monitoring

No additional information available

8.3. Engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station. Provide readily accessible eye wash stations and safety showers.

8.4. Individual protection measures, such as personal protective equipment (PPE)

Hand protection : Wear suitable gloves resistant to chemical penetration. Consult glove manufacturer's product information on material suitability and material thickness.

Eye protection : Wear eye/face protection

Skin and body protection : Wear suitable protective clothing

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. SDSs cannot provide detailed and complete respiratory protection guidelines. Selection of respiratory protection must be done by a qualified person who has assessed the work environment.

Environmental exposure controls : Avoid release to the environment.

Other information : Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

Physical state : Liquid

Appearance : Liquid.

Colour : Amber. Light tan.

Odour : None

Odour threshold : No data available

pH : < 3

pH solution : No data available

Relative evaporation rate (butylacetate=1) : No data available

Melting point / Freezing point : Melting point: 0 °C /32 °F

Boiling point : 100 °C / 212 °F

Flash point : No data available

Auto-ignition temperature : No data available

Flammability : Not flammable

Vapour pressure : No data available

Relative density : No data available

Density : Relative density: 0.95 – 1.05

Solubility : Soluble in water.

Partition coefficient n-octanol/water : No data available

Explosive properties : Not explosive.

Oxidising properties : Not oxidizing

Explosive limits : No data available

Minimum ignition energy : No data available

Fat solubility : No data available

SECTION 10: Stability and reactivity

Reactivity : No dangerous reactions known under normal conditions of use.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : No dangerous reactions known under normal conditions of use.

Conditions to avoid : Heat. Incompatible materials.
Incompatible materials : Strong bases. Strong oxidizers.
Hazardous decomposition products : May include, and are not limited to: oxides of carbon. Irritating fumes.

SECTION 11: Toxicological information

Acute toxicity (oral) : Not classified.
Acute toxicity (dermal) : Not classified.
Acute toxicity (inhalation) : Not classified.

Formic acid (64-18-6)	
LD50 oral rat	1100 mg/kg (Source: NLM_CIP)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 inhalation rat	7.85 mg/l/4h

L-Lactic acid (79-33-4)	
LD50 oral rat	3730 mg/kg (Source: IUCLID)
LD50 dermal rabbit	> 2000 mg/kg (Source: NICNAS)
LC50 inhalation rat	> 7.94 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)

Benzenesulfonic acid, C10-16-alkyl derivatives (68584-22-5)	
LD50 oral rat	775 mg/kg (Source: CHEMVIEW)
LD50 dermal rabbit	2000 mg/kg (Source: CHEMVIEW)
LC50 inhalation rat	> 1.9 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)

Dodecylbenzenesulfonic acid (27176-87-0)	
LD50 oral rat	1260 mg/kg (Source: JAPAN_GHS)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Remarks on results: other:
LD50 dermal rabbit	631 – 1000 mg/kg (Source: CHEMVIEW)
LC50 inhalation rat	0.31 mg/l air Animal: rat, Animal sex: male, Remarks on results: other:

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivatives (85536-14-7)	
LD50 oral rat	1219 mg/kg (Source: IUCLID)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

Unknown acute toxicity (GHS AU) : 2.5% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Vapours))
Skin corrosion/irritation : Causes severe skin burns.
pH: < 3
Based on Corrositex data (OECD TG435)
Serious eye damage/irritation : Causes serious eye damage.
pH: < 3
Based on Corrositex data (OECD TG435)
Respiratory or skin sensitisation : Not classified.
Germ cell mutagenicity : Not classified.
Carcinogenicity : Not classified.

Formic acid (64-18-6)	
NOAEL (chronic, oral, animal/male, 2 years)	400 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies), Remarks on results: other:Effect type: toxicity (migrated information)

Reproductive toxicity : Not classified.
STOT-single exposure : Not classified.

Formic acid (64-18-6)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified.

Formic acid (64-18-6)	
LOAEL (oral, rat, 90 days)	2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
NOAEL (oral, rat, 90 days)	400 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.244 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)

Benzenesulfonic acid, C10-16-alkyl derivatives (68584-22-5)	
NOAEL (oral, rat, 90 days)	500 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)
NOAEL (dermal, rat/rabbit, 90 days)	> 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)

Dodecylbenzenesulfonic acid (27176-87-0)	
LOAEL (oral, rat, 90 days)	200 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
LOAEL (dermal, rat/rabbit, 90 days)	286 mg/kg bodyweight Animal: rat, Animal sex: male
NOAEL (oral, rat, 90 days)	100 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEL (dermal, rat/rabbit, 90 days)	< 286 mg/kg bodyweight Animal: rat, Animal sex: male

Aspiration hazard : Not classified.

Formic acid (64-18-6)	
Animal studies and expert judgment for classification	False

L-Lactic acid (79-33-4)	
Animal studies and expert judgment for classification	False

Benzenesulfonic acid, C10-16-alkyl derivatives (68584-22-5)	
Animal studies and expert judgment for classification	False

Dodecylbenzenesulfonic acid (27176-87-0)	
Animal studies and expert judgment for classification	False
Viscosity, kinematic	905.66 mm²/s

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivatives (85536-14-7)	
Animal studies and expert judgment for classification	False
Viscosity, kinematic	1618.868 mm²/s

Other information : Likely routes of exposure: ingestion, inhalation, skin and eye

SECTION 12: Ecological information

According to the National Code of Practice for the Preparation of Material Safety Data Sheets, Environmental classification information is not mandatory. Information relevant for GHS classification is available on request

12.1. Ecotoxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

Hazardous to the aquatic environment, short–term (acute) : Not classified.

Hazardous to the aquatic environment, long–term (chronic) : Not classified.
Other information : No other effects known.

Formic acid (64-18-6)	
LC50 - Fish [1]	130 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	120 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 - Crustacea [2]	138 – 165.6 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LOEC (chronic)	> 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	≥ 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
BCF - Fish [1]	(0.22 dimensionless)
Partition coefficient n-octanol/water	-1.9 (at 23 °C (at pH 5)

L-Lactic acid (79-33-4)	
LC50 - Fish [1]	320 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static] Source: IUCLID)
LC50 - Fish [2]	100 – 180 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static] Source: EPA)
EC50 - Crustacea [1]	240 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 - Crustacea [2]	180 – 320 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
Partition coefficient n-octanol/water	-0.54 (at 25 °C)

Benzenesulfonic acid, C10-16-alkyl derivatives (68584-22-5)	
LC50 - Fish [1]	3 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static] Source: IUCLID)
EC50 - Crustacea [1]	2.9 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Partition coefficient n-octanol/water	2 (at 23 °C)

Dodecylbenzenesulfonic acid (27176-87-0)	
LC50 - Fish [1]	10.8 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
LC50 - Fish [2]	3.5 – 10 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
EC50 - Crustacea [1]	5.88 mg/l (Exposure time: 48 h - Species: Daphnia magna)
BCF - Fish [1]	(119 L/kg (whole body w.w.)

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivatives (85536-14-7)	
LC50 - Fish [1]	5.6 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [flow-through] Source: IUCLID)
EC50 - Crustacea [1]	5.2 mg/l (Exposure time: 48 h - Species: Daphnia magna)
NOEC (chronic)	1.18 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
Partition coefficient n-octanol/water	2.2 (at 23 °C (at pH 3.7)

12.2. Persistence and degradability

Glyvak	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Glyvak	
Bioaccumulative potential	Not established.

Formic acid (64-18-6)	
BCF - Fish [1]	(0.22 dimensionless)
Partition coefficient n-octanol/water	-1.9 (at 23 °C (at pH 5)

L-Lactic acid (79-33-4)	
Partition coefficient n-octanol/water	-0.54 (at 25 °C)

Benzenesulfonic acid, C10-16-alkyl derivatives (68584-22-5)	
Partition coefficient n-octanol/water	2 (at 23 °C)

Dodecylbenzenesulfonic acid (27176-87-0)	
BCF - Fish [1]	(119 L/kg (whole body w.w.)

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivatives (85536-14-7)	
Partition coefficient n-octanol/water	2.2 (at 23 °C (at pH 3.7)

12.4. Mobility in soil

Formic acid (64-18-6)	
Partition coefficient n-octanol/water	-1.9 (at 23 °C (at pH 5)

L-Lactic acid (79-33-4)	
Partition coefficient n-octanol/water	-0.54 (at 25 °C)

Benzenesulfonic acid, C10-16-alkyl derivatives (68584-22-5)	
Partition coefficient n-octanol/water	2 (at 23 °C)

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivatives (85536-14-7)	
Partition coefficient n-octanol/water	2.2 (at 23 °C (at pH 3.7)

12.5. Other adverse effects

Ozone : Not classified.
Other adverse effects : No additional information available

Glyvak	
Fluorinated greenhouse gases	False

Formic acid (64-18-6)	
Fluorinated greenhouse gases	False

L-Lactic acid (79-33-4)	
Fluorinated greenhouse gases	False

Benzenesulfonic acid, C10-16-alkyl derivatives (68584-22-5)	
Fluorinated greenhouse gases	False

Dodecylbenzenesulfonic acid (27176-87-0)	
Fluorinated greenhouse gases	False

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivatives (85536-14-7)	
Fluorinated greenhouse gases	False

SECTION 13: Disposal considerations

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

SECTION 14: Transport information

14.1. UN number

UN-No. (ADG) : 1760

UN-No. (IMDG) : 1760
UN-No. (IATA) : 1760

14.2. UN Proper Shipping Name

Proper Shipping Name (ADG) : CORROSIVE LIQUID, N.O.S. (L-Lactic acid, formic acid)
Proper Shipping Name (IMDG) : CORROSIVE LIQUID, N.O.S. (L-Lactic acid, formic acid)
Proper Shipping Name (IATA) : Corrosive liquid, n.o.s. (L-Lactic acid, formic acid)

14.3. Transport hazard class(es)

ADG

Transport hazard class(es) (ADG) : 8
Danger labels (ADG) : 8
:

IMDG

Transport hazard class(es) (IMDG) : 8
Danger labels (IMDG) : 8
:

IATA

Transport hazard class(es) (IATA) : 8
Danger labels (IATA) : 8
:

14.4. Packing group

Packing group (ADG) : III - Substances presenting low danger
Packing group (IMDG) : III
Packing group (IATA) : III

14.5. Environmental hazards

Marine pollutant : No
Dangerous for the environment : No
Other information : No supplementary information available.

14.6. Special precautions for user

Specific storage requirement : No data available
Shock sensitivity : No data available

14.7. Additional information

Other information : No supplementary information available.
Special transport precautions : Do not handle until all safety precautions have been read and understood.

Transport by road and rail

UN-No. (ADG) : 1760
Special provision (ADG) : 223, 274
Limited quantities (ADG) : 5l
Excepted quantities (ADG) : E1
Packing instructions (ADG) : P001, IBC03, LP01
Portable tank and bulk container instructions (ADG) : T7

Portable tank and bulk container special provisions (ADG) : TP1, TP28

Transport by sea
UN-No. (IMDG) : 1760

Air transport
UN-No. (IATA) : 1760

14.8. Hazchem or Emergency Action Code

Hazchem Code : 2X

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

15.2. International agreements

No additional information available

SECTION 16: Other information

Revision date : 5/3/2024
Expiry date : 5/3/2029
Other information : None.
Prepared by : Nexreg Compliance Inc.
www.Nexreg.com

Classification	
Skin Corr. 1C	H314
Eye Dam. 1	H318

Full text of H-statements	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1C	Skin corrosion/irritation, Category 1C
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H226	Flammable liquid and vapour
H302	Harmful if swallowed
H311	Toxic in contact with skin
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage

Full text of H-statements	
H315	Causes skin irritation
H318	Causes serious eye damage
H331	Toxic if inhaled
H335	May cause respiratory irritation